The Economist

London's rotten police

Turkey on the brink of dictatorship

Myth-busting young consumers

How to find an alien

JANUARY 21ST–27TH 2023

DISNEY'S SECOND CENTURY

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The world this week Politics

Russia intensified its missile attacks on cities in **Ukraine**, part of its strategy to bomb the population into submission. One rocket hit a residential block in Dnipro, killing at least 40 people, the deadliest single loss of civilian lives in Russia's latest campaign. It has mostly targeted energy infrastructure, causing widespread loss of power in the depth of winter.

Ukraine's **interior minister** was killed in a helicopter crash in a suburb of Kyiv. The helicopter came down in dense fog near a nursery, killing at least 14 people in total. The interior ministry is responsible for domestic security and has helped gather evidence on Russian war crimes.

Christine Lambrecht resigned as **Germany's** defence minister. She had lost credibility after a number of gaffes, such as offering to supply Ukraine with helmets when it needs heavy weapons. The new defence minister is Boris Pistorius. His appointment came as Germany's allies pressed the government to send Leopard tanks to Ukraine, a move it has resisted.

Italian police arrested Matteo Messina Denaro, **Italy's** most-wanted Mafia figure, after 30 years on the run. He was caught in Palermo attending a clinic under a false name. The arrest was hailed as the culmination of a three-decade-old strategy to weaken the grip of Cosa Nostra on Sicily.

A Brazilian Supreme Court judge approved a request from prosecutors to include Jair Bolsonaro, **Brazil's** former right-wing president, in an investigation into the storming of government buildings by his supporters this month. Luiz Inácio Lula da Silva, the new president, dismissed 40 soldiers who were stationed outside the presidential palace when the protests took place.

A constitutional clash

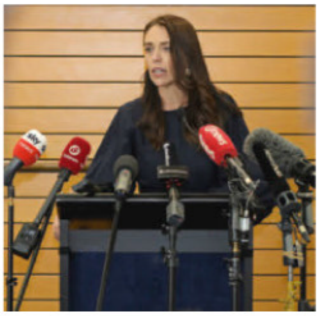
The British government blocked the Scottish Parliament's recently passed **gender-recognition** bill. It is the first time a Scottish law has been blocked since devolution in 1999. The Westminster government said allowing someone in Scotland to change their gender more easily would have a negative impact on nationwide "equalities protections". Nicola Sturgeon, Scotland's first minister, promised to pursue the issue in the courts. Separately, the British government reversed course and said that a new law to ban conversion therapy would now include trans people.

China's population fell for the first time since the 1960s. The government has long struggled to convince people to have more children. A shrinking labour force and ageing population will increase pressure on the economy and health system. It is also a blow to national pride: India is poised to pass China as the world's most populous country.

China reported 59,938 covid-related deaths between December 8th and January 12th. It was the first time the government had released such detailed figures since lifting its "zero-covid" policy last month. The real toll is much higher. The official statistics refer only to deaths recorded at medical facilities and doctors have been discouraged from citing covid on death certificates.

Mursal Nabizada, a former MP in **Afghanistan**, was shot dead at her home in Kabul. Ms Nabizada, a champion of women's rights, had decided to stay in the country after the Taliban regained power in 2021. Step by step, the regime has been dismantling women's freedoms and protections. It has even sought to cover the faces of shop mannequins (which is a compromise: it had wanted to chop their heads off).

A plane crash near the tourist city of Pokhara in **Nepal** killed all 72 people on board. It was the country's worst such incident in 30 years.



In a surprise announcement **Jacinda Ardern** said she would step down as New Zealand's prime minister. Ms Ardern led her country through the pandemic—in often controversial ways, such as closing the border for two years. Her approval rating has slumped lately, and she says she no longer has the energy to stay in office. Ms Ardern had faced elections in October.

In the **Philippines** Maria Ressa and her news organisation, Rappler, were cleared of tax evasion by a court in Manila. Ms Ressa, a joint winner of the Nobel peace prize in 2021, provoked the ire of Rodrigo Duterte, the country's previous president, when she investigated his bloody war on drugs.

The Supreme Court in **Israel** blocked the appointment of Aryeh Deri as interior minister and vice-prime minister because of his conviction for tax fraud. The ruling sets Binyamin Netanyahu, the prime minister, who himself faces charges of bribery and fraud, on a collision path with the court. His government has proposals for reforming the court that would limit its powers and, say his opponents, undermine Israeli democracy. More than 80,000 protesters rallied in Tel Aviv against the plan.

Iran executed Alireza Akbari, a British-Iranian convicted by the regime of spying. Mr Akbari, who was arrested in 2019, was previously the deputy Iranian defence minister. He said he had been tortured and forced to confess to crimes that he did not commit.

Jihadists in **Burkina Faso** kidnapped 50 women and girls foraging for food near a town that has been blockaded by the insurgents. Thousands of people have been killed and millions forced from their homes and fields since jihadists began crossing the border from Mali in 2015.

Senior officials from America and Russia will visit **Africa** in a growing struggle for influence on the continent. Janet Yellen, America's treasury secretary, is to visit Senegal, South Africa and Zambia in a bid to counter the economic and political influence of China, a big financier of infrastructure projects. Sergei Lavrov, Russia's foreign minister, will visit South Africa.

The paper trail

More **classified documents** were found at the private home of Joe Biden. The Justice Department appointed a special counsel to look into Mr Biden's handling of the material. Republicans demanded the release of visitor logs to the home (there are none), pointing out that Democrats had lodged a similar request when Donald Trump's home was searched by the FBI last August.

Eric Adams, the Democratic mayor of New York, visited America's border with Mexico to declare that there was "no more room" in his city for any more illegal **migrants**, and to criticise the Biden administration's handling of migration. New York has received tens of thousands of migrants, in part because some Republican states have made a point of busing new arrivals to areas run by Democrats.

Markets were left dumbfounded by the **Bank of Japan's** decision to stick with its policy of controlling the yield on Japanese long-term government bonds. Investors were expecting the central bank to at least signal that it would change its monetary policy, after it had raised the cap on fluctuations (above or below a target of zero) in ten-year bond yields in December. Since then it has spent ¥34trn ($265bn) purchasing bonds to keep yields low. The yen fell by 2% against the dollar after the announcement.

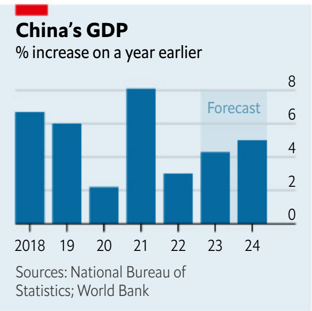
Britain's annual **inflation** rate dipped only slightly in December, to 10.5%. The government has promised to halve the rate this year. Food prices rose by 16.9% over 12 months, the fastest pace in decades. In America the inflation rate fell to 6.5% in December. In the euro zone it dropped to 9.2%.

When there's little to deal in

Goldman Sachs reported a slump in profit for the fourth quarter, caused in part by a slowdown in investment banking. The bank is shedding 6.5% of its staff, including investment bankers, as part of a cost-cutting drive. Still, Goldman's net profit for the whole of 2022 came in at $11.3bn. Other banks have reported similar tales. **Morgan Stanley** blamed its fall in revenue from investment banking on a "challenging market environment".

Some of Brazil's biggest banks, including BTG Pactual and Santander Brasil, were left exposed to debt from **Americanas**, a giant retail chain that has reported accounting "inconsistencies", leading to the resignation of its chief executive and chief financial officer. Facing bankruptcy, Americanas has been given a month's protection from its creditors by the courts. The news of its potential collapse caused its stock to plunge by 77% in a day, the biggest fall for any company in the Ibovespa index for at least two decades.

Didi Global said that China's network-security office had given it permission to sign up new users to its ride-hailing service, 18 months after people were banned from downloading its app amid a crackdown on China's tech giants. Didi fell foul of the authorities when it floated shares in New York in 2021. It eventually delisted its stock. The resumption of normal service indicates that the government now sees tech companies as engines of growth again, rather than as potential political threats.


China's GDP
% increase on a year earlier

Sources: National Bureau of Statistics; World Bank

China's economy grew by just 3% in 2022, the weakest expansion since 1976 apart from 2020. Last year brought more extensive lockdowns in China, disrupting factories and consumer spending. China's **exports** in December fell by 9.9% year-on-year in dollar terms, the sharpest decline since the start of the pandemic.

The "reopening" of China's economy after zero-covid will affect a number of industries this year. The International Energy Agency reckons that **oil** demand will hit a record 101.7m barrels a day, with around half the gain coming from China, even though the speed of its reopening is uncertain. The return of Chinese **tourists** was cited as a factor by the World Tourism Organisation when it forecast that international holidaymaking could reach 80-95% of pre-pandemic levels.

Underlining the surge in demand for air travel after almost three years of covid restrictions, **Ryanair**, Europe's biggest airline, took 4.95m bookings in a week, its most ever. And **United Airlines** said its profit in the fourth quarter of 2022 was almost a third higher than in the same period of 2019, before the pandemic. It expects sales to be 50% higher this quarter than in the same three months last year.

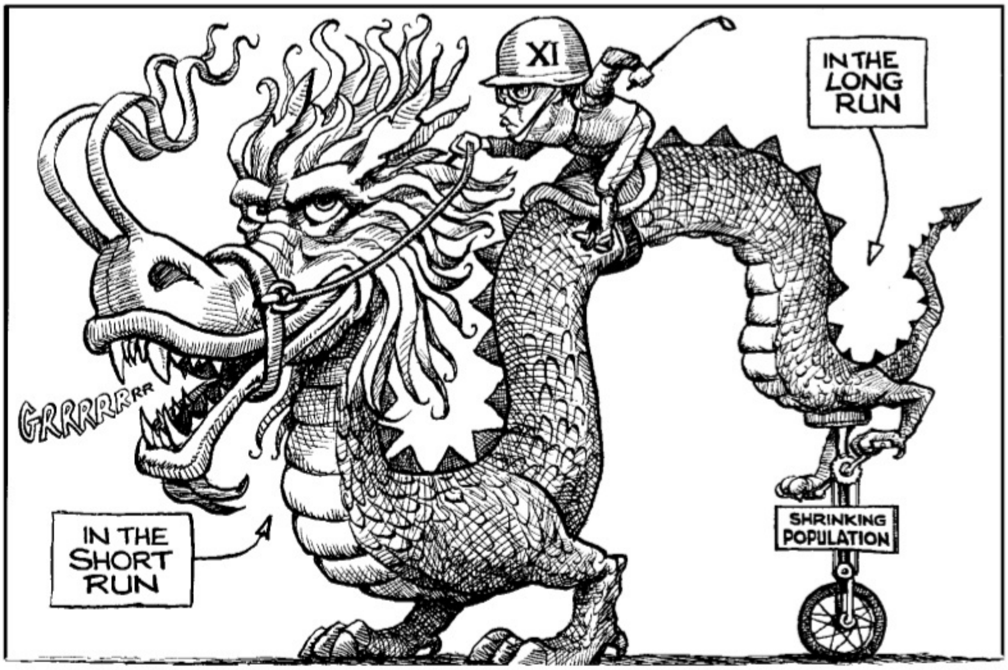
German GDP grew by 1.9% in 2022, despite the energy crisis and knock-on effects of the war in Ukraine. **Germany's** economy ministry thinks a slowdown in the coming months will be "milder and shorter than expected".

Microsoft decided to cut 10,000 jobs, around 5% of its workforce, the latest in a round of lay-offs by tech companies grappling with a post-pandemic slowdown in sales.

Picking winners and losers

After months of trying to avoid bankruptcy, **Britishvolt** called in the administrators. The battery-making startup had been championed by the British government three years ago as part of its "green industrial revolution". On the same day that it collapsed the business committee in the House of Commons launched an inquiry into the viability of making batteries in Britain for electric cars, noting a "series of setbacks" in the industry.

The trial got under way of **Elon Musk** for securities fraud in relation to a misleading tweet he posted in 2018 that suggested he was taking Tesla private. A group of investors are suing him, claiming they lost billions in the market reaction to the tweet. Mr Musk may well settle before the trial reaches its conclusion. Jury candidates displaying hostility towards Mr Musk, including one who described him as a "delusional narcissist", were weeded out from the final selection.



Disney’s second century

Technology is turning the business of culture upside down

“Why do we have to grow up?” Walt Disney once wondered. As it launches its centenary celebrations on January 27th, the Walt Disney Company has sustained its appeal to the young and young-at-heart. This year Hollywood’s biggest studio will invest more in original content than any other firm. It dominates the global box office, with four of last year’s ten biggest hits, and has more streaming subscriptions than anyone else. Its intellectual property (IP) is turned into merchandise ranging from lunchboxes to lightsabers, and exploited in theme parks that are churning out healthy profits even as covid-19 lingers. More than just a business, Disney is perhaps the most successful culture factory the world has ever known.

So the upheaval rocking the company today has relevance far beyond its empire (see Briefing). Uncertainty about the future profitability of Disney’s enormous entertainment portfolio has caused a rollercoaster ride in its share price. It threw out its chief executive in November and will soon replace its chairman. It also faces a rebellion from an activist investment firm that wants a board seat in what could turn into the biggest face-off since Michael Eisner, a previous CEO, was forced out in 2005. Disney’s trials are not just a boardroom drama. Similar crises are unfolding at other leading culture factories, from Warner Bros to Netflix. The reason is a technological revolution that is turning Hollywood upside down.

The continuing pre-eminence of a centenarian like Disney has confounded many predictions. Since the days of “Steamboat Willie”, Mickey Mouse’s first outing in 1928, there has been an explosion in the supply of video entertainment. Television, cable, home video and then the internet have offered increasing amounts of choice. Anyone with a phone can record video and make it accessible to billions of people, free of charge. More content is uploaded to YouTube every hour than Disney+ holds in its entire streaming catalogue.

Many predicted that this surge of niche content would bring down mainstream hit-makers. They were mostly wrong. Infinite choice in entertainment has ruined the companies which produced middling content that people watched because there was nothing else on—witness the collapse in broadcast-television ratings. But those at the very top of the business have thrived. When anyone can watch anything, people flock to the best. Global streamers like Netflix and Amazon have more than 200m direct subscribers, once an unimaginable number.

Those who have fared best at a shrinking box office are the owners of IP that is already popular. As people visit cinemas less often and competition intensifies, studios have pumped money into films people will turn out to see even when they go only three or four times a year. America’s ten biggest films last year were all sequels or parts of a franchise; Disney’s upcoming slate includes an 80-year-old Harrison Ford returning for a fifth outing as Indiana Jones. It has not been a golden age for cinema, but for those at the top it has been a profitable one.

Now technology is shaking things up again. Online distribution has enticed tech firms that make the hardware and software used for streaming. Silicon Valley is of a different scale from Tinseltown (Amazon’s growing advertising business is already three times bigger than Disney’s) and its moguls have no need to make money from streaming, which they see as an add-on to their main business. Hollywood initially wrote off the nerds. But the nerds have enough money to take creative risks. Last year Apple won the best-picture Oscar with “CODA”, a comedy-drama partly in sign language, less than three years after it entered the film business. The more fine content these new producers make and sell below cost, the greater the risk that older studios will fall from the top tier of media into the perilous middle.

At the same time, new technology is allowing those lower down the “long tail” a better chance of reaching the profitable top. Inventions like game engines, which help with the creation of virtual sets, are lowering barriers to entry. Generative artificial intelligence, which can already make rudimentary video, may eventually lower them further. The first beneficiaries have been non-American film studios, which until recently struggled to nail first-class special effects. No longer. Two of the world’s highest-grossing films last year were Chinese—and when covid ebbs in China, expect that number to rise. China has yet to convert foreign audiences to hits like “Wolf Warrior 2” (tagline: “Anyone who offends China, wherever they are, must die”). But don’t bet that this will always be the case. China already has a globally successful social-media app in TikTok and produces video games that are international hits, including Tencent’s “Honour of Kings”, which is the world’s highest-earning mobile game.

Perhaps the most dramatic way technology could disrupt the culture business is by creating new categories of entertainment. Young adults in rich countries already devote more time to gaming than to broadcast television. Hollywood has been slow to catch on, but its Silicon Valley rivals are snapping up gaming IP. Microsoft’s proposed acquisition of Activision-Blizzard, whose games include “Call of Duty” and “Candy Crush”, is worth nearly ten times what Amazon paid for Metro-Goldwyn-Mayer, home of James Bond and Rocky Balboa. Movies based on games are becoming as popular as games based on movies. A series based on “The Last of Us”, a post-apocalyptic game, seems to be a critical success. Sonic the Hedgehog was among last year’s biggest films and Mario is likely to be among this year’s. Nintendo is opening a new Mario theme park next month—in Hollywood, no less.

The mouse and the long tail

The great creative factories of Hollywood will have to adapt if they want to survive. Another successful era is not beyond their reach. Disney’s century has been one of endless reinvention, in business terms as well as artistic ones, as the company has moved its output from projectors to cables to cassettes and now bytes. It will probably continue to innovate. Still, there are already signs that much of the coming century’s popular culture will be dreamt up in places other than Hollywood. For audiences tiring of sequels, that may be a welcome twist. ■

Politics

Turkey's looming dictatorship

Under Recep Tayyip Erdogan, a flawed democracy could tip into full-blown autocracy

TURKEY HAS NATO's second-biggest armed forces. It plays a crucial role in a turbulent neighbourhood, especially in war-scorched Syria. It exerts growing influence in the western Balkans, in the eastern Mediterranean and more recently in Africa. Above all, it is important in the Black Sea and in Russia's war in Ukraine; last year it helped broker a deal to let more Ukrainian grain be shipped to a hungry world.

So outsiders should pay attention to Turkey's presidential and parliamentary elections, which Recep Tayyip Erdogan suggested this week will be held on May 14th. All the more so since, under its increasingly erratic president, the country is on the brink of disaster. Mr Erdogan's behaviour as the election approaches could push what is today a deeply flawed democracy over the edge into a full-blown dictatorship.

When he first became prime minister in March 2003, Mr Erdogan held out much promise for Turkey. Secularists feared that he had an excessively Islamist agenda, but he and his Justice and Development (AK) party have not got far in pursuing it. In its early years Mr Erdogan's government gave new economic and political stability to a country that had for decades lacked either. He defanged the generals who had too often meddled in politics and mounted coups. He brought in reforms to boost the economy. He even put out peace-feelers to the Kurds, Turkey's biggest ethnic minority, who had long suffered persecution at the hands of the army. In 2005 he deservedly secured a prize that had eluded all his predecessors: the formal opening of talks about Turkey one day joining the European Union.

However, the longer Mr Erdogan has been in power, the more autocratic he has grown. After 11 years as prime minister he was elected president, and set about turning that previously weak post into a dominant one. After an attempted coup in 2016 he had tens of thousands of people purged from their jobs or arrested, often for the merest whisper of a connection to the religious group blamed for the plot, such as having attended one of its schools as a child.

As our special report in this issue explains, he has steadily co-opted institutions and eroded checks and balances. He has turned much of the media into a tool of state propaganda. He has, in effect, censored the internet. He has thrown many critics, including opposition leaders, into jail. He has sidelined rivals within the AK party. He has suborned the judiciary, using the courts to harass opponents.

Approaching his third decade in power, he sits in a vast palace snapping orders at courtiers too frightened to tell him when he is wrong. His increasingly eccentric beliefs swiftly become public policy. Thus, he has imposed on a previously independent central bank a monetary theory that is flatly bonkers. He thinks the cure for inflation is to make money cheaper. This is the main reason why Turkish inflation is 64%. Living standards are shrivelling; tempers are fraying.

Voters, especially in cities, are pushing back. Three years ago Mr Erdogan's party lost the mayoral elections in the three biggest cities of Ankara, Istanbul and Izmir. Polls suggest he could lose the presidency in four months, if the opposition unites behind its best candidate and the election is more or less clean.

That is a big if. Mr Erdogan is determined to tilt an already-uneven field even more in his favour. The mayor of Istanbul, Ekrem Imamoglu, perhaps Mr Erdogan's most plausible rival, was recently sentenced to prison and banned from politics, for calling election officials who annulled his first mayoral victory "idiots". The government is asking the constitutional court to shut down the People's Democratic Party (HDP), the largest Kurdish party, many of whose leaders languish in jail. The court has frozen the HDP's bank accounts. The opposition will need the support of Kurdish voters if it is to oust the president.

Mr Erdogan once likened democracy to a tram journey: when you reach your destination, you get off. Under him, elections have seldom been completely fair, but they have been broadly free, with large numbers of voters taking part. The worry this time is that, with Mr Erdogan fearing defeat, he alights and ensures that the elections are neither fair nor free.

Western leaders need to speak out. America and the EU have too often held back from criticising Mr Erdogan for fear of alienating a pivotal if troublesome ally. No one wants a country as important as Turkey to go completely rogue. All are aware that a resentful, isolated Turkish president could do great mischief. He could foment fiercer territorial quarrels with Greece and with Cyprus. He could create further confusion and strife in Syria. He could allow the 5m migrants and refugees in Turkey to set sail for southern Europe, something many would try if they could. And he could go beyond his current refusal to take sides in Ukraine, despite being a NATO member, by continuing to block NATO accession for Finland and Sweden.

Yet Turkey also needs the West, not least to restore some stability to its battered economy. Although its membership talks may be stuck, it still hopes for an upgraded and expanded customs union with the EU that would boost growth. It needs to find a way to revive foreign direct investment, which has tumbled in response to political and economic uncertainty. Turkey relies on Western technology to improve its low productivity. And it wants Western weapons, notably American fighter aircraft. It would be unable to secure any of these things if Mr Erdogan were to turn his back on democracy and join the dictators' club. All this gives him a strong incentive to keep in with the West.

Time for bluntness from Biden

And that should give Western leaders bargaining power. Mr Erdogan is a bully who sees timidity as a reason to press his advantage and toughness as an incentive to mend fences—as he has recently with many of his Middle Eastern neighbours (see Middle East & Africa section). Western leaders should therefore show Mr Erdogan how much they care about his behaviour, by speaking out before the election, privately and publicly, against the prospective bans on Mr Imamoglu and the HDP. It is not too late to pull Mr Erdogan back from the brink. But the West needs to start warning him off now. ■

Health care

Flashing red

Deaths are soaring as health-care systems buckle across the rich world. What can be done?

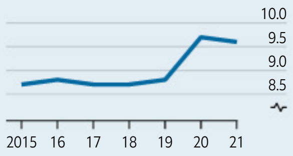
IN 1516 THOMAS MORE described the ideal health-care system. "These hospitals are well supplied with all types of medical equipment and the nurses are sympathetic," the philosopher wrote in "Utopia". "Though nobody's forced to go there, practically everyone would rather be ill in hospitals than at home."

Five centuries later, those who prefer to be ill in hospital would struggle to make it past the lobby. People often lament the shortcomings of their own country's health system. They tend to ignore the extent to which pressure is visible across the rich world (see Finance & economics section). Britain's National Health Service (NHS) is in a winter crisis like none before, with people who have heart attacks waiting 90 minutes for an ambulance. In Canada things are so bad that a children's hospital called in the Red Cross. Even in Switzerland, whose health care is often admired, the system is under enormous stress.

Worse care is contributing to huge numbers of excess deaths. Mortality in Europe is about 10% higher than expected in a normal year. In mid-December French and German deaths were a quarter higher. The chaos is also damaging in ways that cannot be measured. It is distressing to think that one day you will need to call 911, 112 or 999—and that no one will come to help.

OECD, health-care spending

Estimated, % of GDP



Spending on health care is at an all-time high in the rich world. The trouble is that "all-time high" does not necessarily mean "enough". Ageing populations increase demand. Health-care systems compete for staff with other parts of the economy, so doctors' and nurses' wages must keep pace with prevailing rates of pay. Costs rise even if health-care productivity stagnates. The unforgiving logic of this "cost disease" means that in ageing societies health-care spending must usually grow as a share of the economy just to maintain a given level of provision. Countries, such as Britain and Italy, that in the years before the covid-19 pandemic cut health-care spending as a share of GDP, or held it constant, were already on a path to worse services.

Yet squeezed budgets do not fully explain the disarray. Even in places with ample funding, health care is struggling with the unprecedented effects of the pandemic. On the demand side, covid has left behind sicker populations. After years of avoiding flu, many people are now getting it. The world is also discovering some of the costs of lockdowns. In 2020-21 many hospitals and family doctors cancelled appointments for non-covid conditions. People who postponed treatment for other maladies are presenting with later-stage illnesses that need more expensive treatment; they also have poorer chances of recovery.

Covid hits the supply side, too. Many hospitals continue to isolate covid-positive patients and maintain strict cleaning regimes. This eats up time and resources. In addition, staff are burned out. The result seems to have been a decline in productivity. Excluding primary care, the NHS has 13% more doctors and 10% more nurses than in 2019, yet it is treating fewer patients from its waiting list.

What can be done? More money would make little immediate difference. It takes time to hire staff and vacancies are already high. But it may be possible to boost productivity by winding down anti-covid measures that are unnecessary in mostly vaccinated populations. Beyond this year, spare capacity is needed. Governments that cannot find ways to boost productivity will have no choice but to increase funding and therefore raise taxes. Reforms that were already desirable, such as streamlining processes or introducing more competition, may come to be essential.

Governments thinking about the next pandemic should also note the long-term consequences of lockdowns. There is a painful trade-off between suppressing disease in the short term and avoiding bottled-up problems in the future. As More counselled, "it's a pretty poor doctor who cannot cure one disease without giving you another." ■

Africa's state-owned firms

Arresting development

South Africa's collapsing railway firm illustrates how state overreach makes Africa poorer

THE GLOBAL financial crisis of 2007-09 showed that huge bombs had been placed in the rich world's banking systems and capital markets. If one blew up, as Lehman Brothers did, it could send a blast wave through the rest of the economy.

The companies that run power stations, railways and ports can be every bit as systemically important as banks. Eskom, South Africa's state-owned electricity firm, was once among the world's largest utilities by installed capacity. In recent decades it has been hollowed out by graft, cronyism and mismanagement. Daily blackouts now close South African factories, offices and shops. The government reckons this "load-shedding" trimmed GDP growth by about 1.3 percentage points in 2019. The effect is now surely worse: there were roughly four times as many blackouts in the first nine months of 2022 as in all of 2019.

Another South African firm stumbling towards collapse may be even more systemically important, since it affects not just its home country but the wider region. Transnet, which runs the railways, ports and pipelines that connect sub-Saharan Africa's most industrial economy with the outside world, is in deep trouble (see Middle East & Africa section). Like Eskom, it was badly managed by hacks "deployed" by the ruling party and then pillaged through corrupt contracts, many signed during the era of

▸▸

"state capture" under Jacob Zuma, a former president. Now, weighed down by debt and with hundreds of broken locomotives, it cannot keep all of its freight trains running.

Last year, even as coal prices were booming, South Africa's coal exports slumped to their lowest level since 1993. This is because Transnet's main coal line, which ought to carry 81m tonnes to ports, carried just 54m. This represented lost exports worth at least 80bn rand ($4.7bn). Iron-ore exports, which also go by train, slumped to their lowest since 2012, while volumes of general freight sank to levels last seen during the second world war, reckons Jan Havenga of Stellenbosch University. Add to these the extra costs from inefficiency of going by road, and the total hit comes to around 400bn rand, or 6% of GDP.

The poor performance of just these two firms goes a long way towards explaining why South Africa's GDP is likely to grow by a feeble 1.6% over the next three years, less than half the pace of sub-Saharan Africa. That ought to prompt some introspection by South Africa's government, which has long insisted it needs to own big firms to invest, create jobs and reduce racial inequality. This idea of a "developmental state" is also popular in the rest of Africa. Many governments still have Marxist leanings or see in China a model of state-led development.

Yet often politicians want firms to be state-owned so they can give jobs to pals or enrich themselves. These firms tend to arrest development, not accelerate it. A recent IMF study found that fully 40% of state-owned firms in sub-Saharan Africa were unprofitable and that their losses could destabilise local banking systems, hurting the flow of credit to the rest of the economy. Another IMF note in 2019 found that they account for 20% of public debt and their annual losses were equal to 1% of GDP.

Freight expectations

Given that Africa is still poor and underindustrialised, it is tempting for governments to cook up grand strategies filled with buzzwords like "the fourth industrial revolution". But industry cannot thrive if the lights are off and the trains do not run. South Africa's utilities need private investment and effective management, which will not be forthcoming so long as they are the playthings of a dysfunctional ruling party. Transnet's woes, like Eskom's, should serve as a cautionary tale. ■

Consumers

Don't try to dig what we all say

A myth-busting memo on how to sell to the young

DEAR BOSS—You have always tried to attract young and youngish consumers, and our consultants have always come up with new ways to label them. I don't need to remind you that "millennials" and, increasingly, "Gen Z" are our most important markets (see Business section). Together they make up a majority of the world's population and a third of America's. The trouble is that coming up with rules to define a swathe of humanity is more art than science. It is liable to become an exercise in applying stereotypes; not every youngster is sipping kombucha in a Brooklyn warehouse. Luckily you have me, and I'm here to tell you that much of what is written about marketing to today's most prized consumers is a myth.

Start with the idea that, glued to smartphones, Gen Z barely notices the physical world and slavishly follows the latest hype from Instagram or TikTok. It's true that the days of marketing chiefly through television, newspapers and magazines are long gone. Yet social media has not just changed the ways in which people discover brands; it has undermined the power of marketing as a whole. Such is the ease with which digital natives can fact-check our dodgy marketing claims and swipe left on our ads that it is getting harder to build brand loyalty. Online, talk is cheap and prices are readily Googled. Surveys suggest that young Americans are among the most price-sensitive food shoppers. It doesn't help that they have accumulated less wealth than earlier generations had by the same age.

There is a similar temptation to think that physical shops no longer matter. Young consumers love their Amazon deliveries. It makes sense for our company to make sales via social media and ship directly to customers' homes. But what works best is the seamless combination of the digital and physical worlds. Remember those online-only influencer-backed beauty brands like Glossier, which took the world by storm during the pandemic? It turns out that they struggle to get repeat business and have had to pair up with physical retailers lumbered with bricks and mortar. Remember that most Americans still buy their cosmetics at Walmart. If we want to succeed, we need to offer the best of both physical and virtual worlds.

And don't assume that all young customers are DiAngelo-reading social justice warriors. Four-fifths of America's Gen Z consider a brand's sustainability and social impact before checkout, according to one survey. But considering something is not the same as surrendering to it. Gen Z cares less for consumer boycotts than its virtue-signalling parents. It is chiefly youngsters who buy cheap "fast-fashion" outfits to wear once and then send to landfill. And plenty of chains do well among young people without being woke. Just look at Chick-fil-A, which is America's most popular restaurant among teenagers, according to another survey, despite its chairman's past opposition to gay marriage and its donations to socially conservative causes.

What really matters is avoiding hypocrisy. Insincerity is easily exposed online, where everyone loves a takedown. Remember the backlash against Boohoo, a fast-fashion firm, when it appointed Kourtney Kardashian, a jet-setting socialite, as a "sustainability ambassador"? Don't post pictures from your private plane, obviously, but don't pretend you're Greta Thunberg, either. Avoid platitudes, commit only to causes you can tangibly support and be frank when you are putting profits first. Nobody is perfect. To pretend otherwise is so 2013. We are people just as our customers are and people contain multitudes. Isn't the story of your life that yesterday's hippies are tomorrow's suits? ■

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Self-censoring academics

I was pleased to see Bagehot mention the Free Speech Union's support for Joe Kelly (December 10th), who is challenging his criminal conviction for posting a "grossly offensive" tweet. We agree that it should not be a criminal act to be "grossly offensive" online. The law is vague, malleable and open to abuse. A government that says it is committed to free speech should scrap this offence.

But, I disagree with Bagehot's analysis of the government's "cartoonish" focus on free speech in British universities. A recent survey by Tena Prelec, an academic, found that 57% of social-science faculty members think there is a risk to freedom of expression on campus. A separate study from the University and College Union found that 35% of British academics in general self-censor. These statistics are not surprising for us.

We have come to the aid of hundreds of students and academics who have been dragged through long and distressing internal investigative and disciplinary procedures, merely for having expressed unorthodox but lawful opinions. Some are coerced to resign, some get sacked, others forced out on sick leave. For most "heretics" the process is the punishment and, for their peers, a clear warning not to challenge the orthodoxies of the day. Britain has a problem with free speech and, unfortunately, it is not confined to section 127 of the Communications Act.

KAROLIEN CELIE
Legal officer
Free Speech Union
London

Poland's war contribution

You mentioned that the Starlink terminals that are so important to Ukraine's war effort were delivered by SpaceX at the request of the Ukrainian government ("The satellites that saved Ukraine", January 7th). That was true for the first batch, but at the moment the majority of Starlinks (almost 20,000 units) were sent and paid for by Polish government institutions. We strongly believe that the terminals, which cost only a fraction of a howitzer shell, are an extremely cost-effective way to support Ukraine in its brave fight against the Russian invaders.

JANUSZ CIESZYNSKI
Secretary of state, government plenipotentiary for cyber-security
Warsaw

Shaping America's towns

Your article on city planning referred to the land ordinance of 1785 and the grid of property lines created to promote westward expansion in America ("Going off grid", December 24th). The Rectangular Survey System replaced traditional property markers, such as rocks, trees and buildings, which could change over time. Tested in eastern Ohio, the system created vertical rows of townships, divided into "sections". These were a mile square, or 640 acres, and could be subdivided into half-, quarter- and quarter-of-quarter-sections, the last of which was 40 acres; hence the expression "40 acres and a mule" as the basis for subsistence farming.

Almost everything west of Ohio was surveyed this way and innumerable deeds today refer back to these original subdivisions. In a flight over America's western areas the checkerboard pattern of land parcels, direct descendants of the Rectangular System, is readily apparent.

JEFFREY DARBEE
Columbus, Ohio

Rocks of ages

The philosophical debate about how to value lives that have not yet been born dwells too much on the present and future ("All uncreated men are equal", December 24th). As a palaeontologist, my view of what is basically the study of contingency (what if?) is rooted in the past and the evolution of humanity, rather than Derek Parfit's vision of a future, miserable overpopulated world, his "repugnant conclusion". *Homo sapiens* formed in Africa, a continent untroubled by the advances and retreats of glaciers that would have got in the way of human evolution. Various species of *Homo* spread out across the Sahara and Middle East. With a different arrangement of continents this would never have happened. Each of these waves was different culturally, and the early adaptability of *H. sapiens*, honed in the deserts of the Middle East, helped their later colonisation of the rest of Asia and Europe.

But what if the rising seas had flooded the Suez isthmus preventing migration? What if one of the glacial periods had been long and cold enough to hold up evolution? Human and geological history are full of "what if?" moments. It's even possible that we are living in some previous visionary's repugnant conclusion right now, experiencing Parfit's fearful muzak and potatoes. We just don't know it.

PROFESSOR MIKE STEPHENSON
Honorary research associate
British Geological Survey
Nottingham

The question of the unborn is older than you may think. The Talmud contains one such discussion. In the tractate of Bava Metzia rabbis debate whether it would have been better for man not to have been created at all. The Talmud ultimately concludes that it is better that man was created, as he has the ability to do good deeds and improve the world, and the potential to achieve great things. However, it also notes that man's capacity for evil and wrongdoing is also a result of his creation, and that this must be balanced by his capacity for good.

DAVID ROTHENBERG
London

David Benatar, a philosopher, argues that, because of the asymmetry between the harms and benefits of coming into existence, it is always better not to be born. When someone is not brought into the world they are spared the hardships of life yet not deprived of potential positive experiences because there is no one to experience the deprivation. The possible person in question is a purely theoretical concept. There are therefore existential as well as social and economic benefits to reducing the number of people brought into the world.

CHRIS GILMORE
Toronto

The papal shoes

Your recent obituary of Pope Benedict XVI made a common error regarding his "fashion-conscious almost to foppishness" choice of dress ("Joy and severity", January 7th). On the foppishness I agree, but the "red Gucci slippers" made famous by the deceased pontiff were actually the product of a pair of cobblers working in the city, Adriano Stefanelli of Italy and Antonio Arellano of Peru.

JOSEPH DOYLE
Saint Paul, Minnesota

Soul food

Reading about how food affects the mind was an eye-opener indeed ("Use your loaf", December 24th). But it wouldn't come as news to Jerome K. Jerome, who in 1889 wrote the following in "Three Men in A Boat":

"How good one feels when one is full—how satisfied with ourselves and with the world! People who have tried it, tell me that a clear conscience makes you very happy and contented; but a full stomach does the business quite as well, and is cheaper, and more easily obtained. One feels so forgiving and generous after a substantial and well-digested meal—so noble-minded, so kindly hearted."

RON GIELGUN
Belchertown, Massachusetts

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Thrills and spills

DISNEYLAND

As Disney turns 100, its business is on a rollercoaster ride

SPLASH MOUNTAIN, a popular ride in Disneyland, towers over attractions that encapsulate the 100-year history of the Walt Disney Company. To the south, on Main Street USA, a little cinema screens "Steam Boat Willie", in which Mickey Mouse made his debut in 1928. In the centre of the park the Sleeping Beauty Castle evokes the classic Disney animations of the 1940s and 1950s. On the outskirts are areas themed around Star Wars and the Marvel universe, which Disney took over during an acquisitions spree in the 2000s. Passengers at the high point of the ride have a few seconds to take in the view. Then, with a lurch, their car makes a near-vertical plunge and everyone gets drenched.

In the run-up to its centenary, which Disney will start celebrating on January 27th, the company itself has been on something of a rollercoaster ride. The world's biggest entertainment firm, with a market value of $180bn, still rules the box office, with four of the ten highest-grossing films of 2022 (including the sequel to the most lucrative ever, "Avatar"). Its American theme parks have bounced back from pandemic shutdowns to generate record profits. Its broadcast and cable-television networks continue to rake in billions of dollars a year. And in streaming, the medium of the future, Disney has racked up more subscriptions than anyone, last year overtaking Netflix. During 12 thrilling months in 2020-21, investors clung on as the company's share price doubled.

Then came the plunge into cold water (see chart 1 on next page). In the past year Wall Street has realised that Hollywood's old formats are decaying faster than its new ones are growing. Cinema has not fully recovered from covid-19, and may never. Cable is in steepening decline. Meanwhile Disney's streaming division is still losing more than $1bn a quarter as it competes with rivals like Apple and Amazon, who use streaming as a loss-leader for their other businesses. Disney's market value has dropped by half since its peak in 2021, back to the depths it plumbed at the outbreak of the pandemic. In November the company sacked its chief executive, Bob Chapek, and brought his predecessor, Bob Iger, back from retirement.

Mr Iger, a corporate Jedi who led Disney for a successful decade and a half until 2020, has been given two years to turn things around. He must manage the decline of Disney's legacy businesses, make its new ventures profitable and find a successor who can fend off the threat from Silicon Valley. His performance is already under fire from Nelson Peltz, an activist investor whose company, Trian Fund Management, has bought a 0.5% stake (worth $900m) and is demanding a seat on the board. How Mr Iger navigates these challenges will help shape the entertainment business and determine whether Disney survives another hundred years.

In the 1950s Walt Disney literally sketched out why the firm he had founded decades before was so successful, drawing doodles of Mickey Mouse and Donald Duck on a flow chart showing how the different parts of his empire mutually reinforced each other. The Disneyland park "plugs movies"; television "plugs merchandise"; the film studio "provides interchange of stars" for TV, he noted. At the centre of the diagram he put the studio's creative output, which generates the intellectual property that powers every part of the business.

The strategy remains unchanged. At Disneyland visitors can board a replica of the *Millennium Falcon* to relive scenes they first saw in "Star Wars" at the cinema. On their way out they can buy a $25 Baby Yoda ▸▸

doll, a reminder to tune in for the next season of "The Mandalorian" on the Disney+ streaming service. Streaming, which turns TV viewers into direct customers for the first time, promises yet more cross-promotion. In future Disney+ might recommend shows based on the rides a subscriber has taken at its theme parks, for instance.

But several pillars of this structure are now wobbling at once. Take broadcast and cable television, which contribute the biggest share of Disney's profits (see chart 2). The industry is in long-term decline, as households swap pricey cable packages for cheaper streaming services, as well as free content on YouTube and the like. The primetime audience of ABC, a broadcast network owned by Disney, has fallen by nearly a third in the past four years. Since July Americans have spent more time streaming than watching cable, according to Nielsen, which measures audiences. From next year only a minority of American households will have cable subscriptions, forecasts eMarketer, a research firm.

Cable companies have been able to protect profits by raising prices for their remaining customers, who are addicted to sport, in particular. But this strategy has run out of road. In November Disney reported a 5% year-on-year drop in quarterly revenue from its television businesses. A weak advertising market, with neither American elections nor mammoth sporting events this year, makes matters worse. MoffettNathanson, a firm of analysts that had expected operating profit at Disney's cable networks to fall by 4% this financial year, now predicts a drop of 17%. TV (as opposed to streaming) "is marching to a distinct precipice, and it's going to be pushed off", Mr Iger said in September, shortly before his return. Disney's recent results suggest "that cliff may be closer than any of us thought", MoffettNathanson argues.

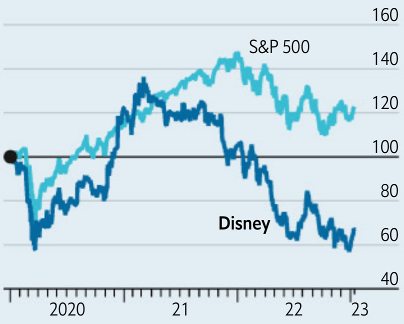
As old-fashioned TV totters towards the abyss, Hollywood studios are scrambling for parachutes in the form of streaming services. Disney+ made a blisteringly strong start in 2019, signing up 10m American households on its launch day. Its debut in Europe a few months later handily coincided with the first covid lockdowns, adding millions more. It now has 164m subscribers. If one includes ESPN+, Disney's sports streamer, and Hulu, its general-entertainment platform, Disney has more streaming subscriptions even than Netflix, and a lot more than everyone else (see chart 3 on next page).

Yet the streaming business is losing money hand over fist. The trigger for Mr Chapek's ejection was his announcement in November that Disney's streaming losses in the latest quarter had run to $1.5bn, twice the loss incurred a year earlier. The cause is what John Malone, the chairman of Liberty Media, a big entertainment investor, has described as a "mad Oklahoma land-rush" for market share. To win subscribers, Hollywood's biggest studios have ramped up their combined content spending by 50% since 2019. Amazon and Apple, new to the game and eager to stock their libraries, have been writing big-tech-sized cheques that have raised costs for everyone. "We sit around and go, 'Can you believe what Apple's paying?'," Netflix's boss, Reed Hastings, said at a recent conference.

Nail-biting

Share prices, January 1st 2020=100

1



Source: Refinitiv Datastream

Despite splashing out on content, studios have kept streaming prices low. In America and Canada the average Disney+ subscriber paid $6.10 per month in the latest quarter, less than half the figure at Netflix, which has been around for longer and has steadily raised its prices. Disney's streaming customers outside America and Canada, who make up over 70% of the total, generated even less. The 61m subscribers in India, who tune in mainly for the cricket, each contributed $0.58 a month.

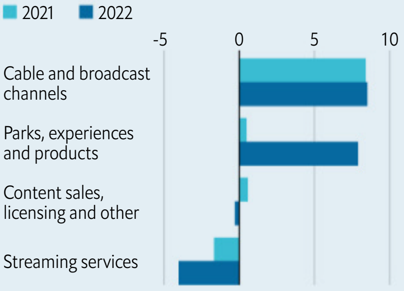
At Wall Street's urging, Hollywood is shifting its focus from growth to profits. Some studios have announced deep cuts. Warner Bros Discovery, for instance, cancelled an almost-finished $90m-movie, "Batgirl", among other projects. Mr Iger has promised to take a "hard look" at costs. Disney is also raising prices: in December it added advertising to the cheapest tier of Disney+, while increasing the price of an ad-free subscription by 38%, to $10.99 a month in America. Mr Iger may drop the target of adding another 50m Disney+ subscribers by the end of next year, a goal that could drag the unit further into the red. As Mr Malone recently warned, "There is a lot of blood flowing down the gutters of people who are streaming. Some of them can afford it and some of them can't." The assumption is that there will be some consolidation or closures among the many streaming services, with Disney's smaller rivals looking most vulnerable.

More leak than stream

Disney, operating income by segment, $bn

Financial years ending in October

2



Source: Company reports

Adding to the pressure is the uncertain outlook for Disney's other divisions. The cinema, where Disney properties from Mickey Mouse to "Toy Story" first entered the public imagination, is losing its cultural clout. Theatres around the world lowered their curtains at the start of the pandemic, reducing global box-office receipts in 2020 to 19% of what they had been in 2019. Despite the success of the "Avatar" sequel and a few other blockbusters, takings in 2022 were only 65% of the pre-pandemic level. Gower Street Analytics, a research firm, forecasts that this year receipts will still be a quarter below the pre-covid norm.

Part of the reason is China, where Disney's blockbuster of 2019, "Avengers: Endgame", made a quarter of its takings. In addition to the lockdowns that suppressed ticket sales last year, the government has become sniffier about Western films. In February "Black Panther: Wakanda Forever" will become the first Marvel film to be allowed a cinematic release in China in three-and-a-half years.

In the West, too, cinema's power is fading. Even before the pandemic, consumers were losing the habit of going to the movies for anything bar the most spectacular releases. The average American visited the cinema five times in 2000 but only 3.5 times in 2019. During the same period the country lost 1,600 of its cinemas. Covid sharply accelerated this decline; now many in Hollywood suspect the box office will never fully recover.

A permanently weakened cinema market would dent Disney's earnings: it made an operating profit of $2.7bn from its film studio in 2019. But the indirect cost could be even higher if the shift makes it harder to popularise new stories and characters. There is a nagging worry in Hollywood that the small screen struggles to make the lasting impression that the cinema once did. Many note that Netflix, despite keeping its 223m subscribers perfectly content, has struggled to launch enduring franchises of the sort that Disney churns out.

Romantics ascribe cinema's power to the magic of a shared experience, or to the sensory impact of a vast screen and thumping sound system. To watch "Dune" on a mere television is "to drive a speed- ▸▸

boat in your bathtub", declared its director, Denis Villeneuve. Pragmatists suspect that cinema's power has more to do with the way it is marketed. Persuading millions of people to watch a film during a short run at the theatre requires a concentrated promotional blitz, in which $100m or more can be blown in a few weeks. Studios are glad to avoid that cost in favour of a softer streaming launch. But executives wonder if skipping the theatre makes it harder to create an enduring cultural icon.

Similar questions are being asked at Disney's amusement parks, where the awesome power of its creative assets is most clearly on display. As children high-five Spider-Man, grown men wander around in $35 mouse ears. Superfans can get married outside the Sleeping Beauty Castle, the holiest place in the Disney religion, for $125,000 (Mickey Mouse can attend, for $2,070 per half-hour).

The parks have come roaring back from pandemic closures, as families splurge on treats deferred during lockdown. The relevant division earned an operating profit last year of $7.9bn, 16% more than before the pandemic, making it the company's main source of growth. At its American properties Disney has harnessed pent-up demand, introducing airline-style pricing to charge more in busy periods. For a family of four, tickets for a day at Disneyland and the adjoining California Adventure park in high season cost nearly $1,000, not including any $14 Wakandan pork wraps or $40 lightsabers the visitors may buy.

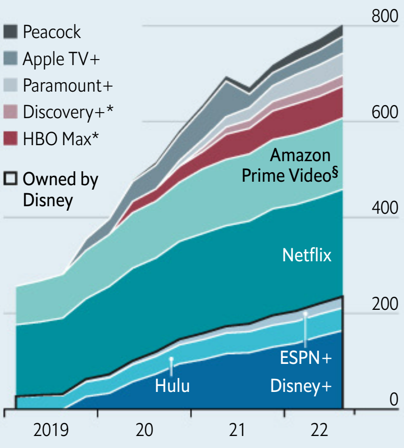
Some at Disney worry that, by milking customers so vigorously, the company may weaken the parks' role in reinforcing brand loyalty among their 150m annual visitors. "Why are they going in front of us?" a girl asks her mother as another family sweeps to the front of an hour-long queue for the Indiana Jones ride. The answer is that since 2021 Disney has let visitors pay $25 for a pass to skip a queue. Other parks, like Universal Studios, do this too. Still, points out a former Disney parks executive, for a visit to Disneyland to be successful, "Parents have to be the heroes"—and it is hard for them to feel heroic while explaining to their children that they are in the second-class lane.

Mr Iger is said to be more sympathetic to these concerns than Mr Chapek was, but until other parts of the business pick up, Disney will need to wring what money it can from its parks. What is more, the parks face a political distraction. Last year Mr Chapek enraged Republicans in Florida by criticising the state's so-called Don't Say Gay law, which restricts discussion of LGBT matters in classrooms. In retaliation the state passed a law to abolish the special business district in which Disney World has operated on favourable terms for over 50 years. The law, which takes effect in June, leaves much unclear, including who should pay off the district's debt. Florida's governor, Ron DeSantis, is expected to run for president next year and seems unlikely to back down in his war on "woke CEOs".

3

21st-century flux

Worldwide streaming-TV subscribers†, m



†Includes estimates *Owned by Warner Bros. Discovery
§Active viewers only
Source: Ampere Analysis

The power to plant and nurture intellectual property in cinemas and parks gives Disney an advantage over rivals from Silicon Valley. "If the centre of creation of [intellectual property] shifts from the cinema...Disney would find itself as just another contender, with a smaller war chest than the big tech companies that will be looking to invest and acquire," notes Enders Analysis, a media-research firm.

As storytelling moves to new formats, Disney may need to broaden its creative horizons. "Disney needs to see what a broad business it's in. It builds worlds and characters, not just movies," argues a former executive. In 2021 Deloitte, a consultancy, found that whereas past generations of Americans named TV as their favourite kind of home-entertainment, Generation Z—roughly, those under 25—ranked it last. Their main hobby, by some distance, was video gaming.

Gaming is a blind spot for Mr Iger, who wound up Disney's gaming arm during his previous stint as chief executive. Today Disney licenses its brands to developers like Electronic Arts, which makes Star Wars and Marvel games, among others. With Netflix, Amazon and Apple now offering gaming subscriptions alongside video, Disney looks like the odd one out. Last year Mr Iger told the *New York Times* about the moment he realised that, by licensing Disney's video content to Netflix, he was helping a competitor: "I woke up one day and thought, 'We're basically selling nuclear weapons technology to a third-world country, and now they're using it against us.'" Having Star Wars video games on non-Disney platforms like Amazon's Luna may soon feel like a similar mistake.

Before launching Disney+ Mr Iger bought a controlling stake in BAMTech, a streaming-technology company. The goal was to get "engineering DNA" into Disney, says a former colleague, who thinks Mr Iger may make another acquisition to inject some gaming DNA. Electronic Arts, with a market value of $34bn, is said to be looking for a buyer. Or Disney could step into the metaverse by acquiring Roblox, a gaming platform worth almost $20bn, or the privately held Epic Games, which as well as making "Fortnite" runs the Unreal Engine, a 3D-modelling tool which Disney used to make "The Mandalorian".

Disney is carrying $37bn of net debt, however, a hangover from Mr Iger's last shopping spree, which culminated in the purchase of the 21st Century Fox studio for $71bn. Mr Peltz, the activist investor, has complained about the firm's creaking balance-sheet, in particular. Offloading some legacy assets before they expire could provide some financial room for manoeuvre.

People close to Mr Iger say he did not plot his return and is unlikely to drag out his second act. That makes the search for a successor urgent, and there is no obvious heir. Meanwhile, the job is getting ever more demanding. Streaming has turned Disney into a gigantic direct-to-consumer business, as well as a far more international one. Its boss must manage political relationships with everyone from Florida's Republicans to the Chinese Communist Party. And as technology puts Hollywood in competition with Silicon Valley, Disney will have to find new ways of exploiting its intellectual property, the one thing its richer rivals cannot yet match. The enduring value of those creations was foreseen by Walt Disney, who declared on the eve of Disneyland's opening: "I only hope that we never lose sight of one thing—that it was all started by a mouse." ■

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The Met

Predators in the police

The case of David Carrick is the latest in a line-up of horrors

Predators thrive in institutions that smooth access to victims. The Metropolitan Police Service is no exception. David Carrick, who on January 16th (and in an earlier hearing) pleaded guilty to 24 counts of rape and dozens more sexual offences over a 20-year period, used his position as a Met officer to prey on women, showing them his warrant card to win their trust and telling them later they would not be believed. The Met says that on nine separate occasions it and other police forces had been made aware of "off-duty incidents" involving Mr Carrick. Despite a "pattern of behaviour that should have raised concerns", the force failed to notice it was harbouring one of Britain's most prolific rapists.

This tale of violent misogyny and impunity in Britain's largest police force is horrifyingly familiar. After a serving Met officer, Wayne Couzens, kidnapped, raped and murdered a young woman, Sarah Everard, in 2021, it emerged that many complaints about "The Rapist", as he was dubbed by colleagues, had gone uninvestigated. (Mr Carrick was known by other officers as "Bastard Dave".) In October the interim findings of a report by Dame Louise Casey, one of a number of probes sparked by Ms Everard's murder, showed how shockingly badly the Met handled misconduct allegations. It took on average 400 days to resolve allegations of misconduct (see chart on next page). Less than 1% of officers involved in two or more cases had been sacked. Allegations of sexual misconduct "and other discriminatory behaviours" were especially likely to be dismissed.

The revelations about Mr Carrick are likely to lead to calls for a wider-ranging inquiry than any so far commissioned, perhaps along the lines of the Macpherson Report, which followed the murder of Stephen Lawrence, a black teenager, in London in 1993. Some believe the rot runs so deep that someone from outside the institution should take charge of removing it.

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25 Strictness in schools
26 Bagehot: Money in politics

For now, though, the task of reforming the Met's toxic culture is the responsibility of the force's newish commissioner, Sir Mark Rowley. Since he took over in September, the Met has embarked on a number of reforms designed to kick out degenerate officers. Most significantly, it has set up a domestic-abuse and sexual-offences unit to investigate allegations against serving officers. This week, after Mr Carrick's crimes emerged, Sir Mark said it was investigating at least 800 of its 35,000 officers; more than one in every 50 of the Met's officers has been taken off frontline duties while they are being probed.

Many more changes will be needed. Mr Carrick's case illustrates the importance of rigorous vetting. The Met says that when he joined the force in 2001 there were already two allegations against him; today, it says, owing to more "robust" vetting he would not have been offered a job. He should have been vetted again ten years later but was not—something that happens too often but is being tackled, it says.

Yet a former senior Met officer says it is not clear how vetting processes have really changed beyond becoming a more thorough version of the background and security checks it already conducts. He says the force should consider putting all candidates through psychometric testing. It already uses such tests to assess officers' suitability for counter-terrorism roles; tests designed to profile personality types could be used to weed out bullies and narcissists, he reckons.

The litany of horrors raises the question of whether the Met has more reprobate coppers than other forces. It is impossible to know. But the Met does have distinctive characteristics. Met police tend to live outside the area they serve—many come from Kent or Essex, and Mr Carrick came from Hertfordshire—which may mean they consider themselves separate from the people they serve. That may foster a different culture to that of other forces. Given that London has a higher proportion of ethnic minorities than the counties that surround it, it could be especially relevant to attempts to tackle racism in the force.

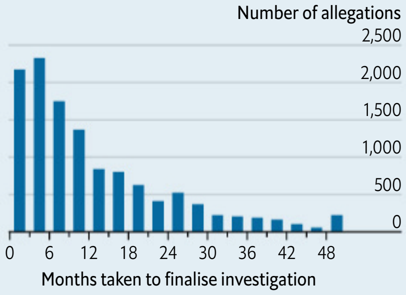
It is also possible that some departments in the Met are more likely to foster undesirable behaviour than others. Mr Carrick, like Mr Couzens, was part of the Parliamentary and Diplomatic Protection Command, which provides officers to guard the Palace of Westminster. It is considered an elite unit. It is also "one of those units where you put constables standing outside Parliament for hours on end," says the former officer. There's a lot of banter, not very much supervision and "it can attract lazy people who want to hold a gun". The Met also has a smaller proportion of female officers than most other forces (around 30%; the average is 34%).

Though some of its problems may be particular to the Met, its scandals are likely to hold lessons for other forces. The social pressure among police to be a team player can be unhealthy. Officers should feel able to express misgivings about a particular colleague without fearing they will be punished for it. "The mantra you hear all the time in the police that 'you're my colleague so you need to have my back' is overdone," says the former officer.

Misogyny is a problem in all police forces, notes Zoë Billingham, who for 12 years was Her Majesty's Inspector of Constabulary and Fire and Rescue. "One of the things that worries me is that more chief constables from other forces should be standing up and saying this [misogyny and violence against women] is a problem everywhere and we are going to tackle it," she says. "That doesn't seem to be happening."

Too many, too slow

Metropolitan Police, misconduct allegations and investigations, 2013-19



Source: Casey Interim Review

More concerning yet, she adds, is what such scandals reveal about the way police deal with allegations of rape and sexual assault. Rape has the lowest charging rate of all crimes: less than 2% of reported rapes lead to convictions. It can be difficult to prove a rape has taken place, especially when victims do not want to testify. Yet "there is still a lingering sense that some officers are less responsive to crimes typically suffered by women, [such as] domestic violence and rape," Ms Billingham says. The worry is that the Met's latest scandal will further deter women from reporting such crimes. "People will be thinking what if, God forbid, you reported a rape and someone like Carrick turns up?" she says. Or, as is more likely, one of the innumerable officers who heard dreadful things about him, but did absolutely nothing. ■

Gender policy

Populism, Scottish-style

A constitutional row provokes an illiberal response from the SNP

The Scottish National Party's plan for their new nation reflects a classically liberal ideal of limited government. It would feature a written constitution, which would entrench fundamental rights and "bind the institutions of the state", all overseen by a Scottish Supreme Court. For many Scots this is an attractive alternative to Britain, where a swaggering government seems to do as it wants so long as it controls Parliament.

Which makes a shrill rhetorical turn by the SNP all the more jarring. In November the Supreme Court in London found that the Scottish Parliament in Holyrood could not unilaterally organise a second referendum on independence. On January 17th Alister Jack, the Scottish secretary, announced the decision of the British government to block a new law, passed by Holyrood in December, which would make it much easier for people to change their gender in law. Mr Jack argues that the Scottish bill would affect the operation of equalities law, a matter reserved for Westminster, across Britain. Whether he is right is also likely to end up being tested at the Supreme Court.

In response, outrage. Nicola Sturgeon, the SNP leader, said this was a "full-frontal attack" on the Scottish Parliament, and that democracy itself was at stake. Her colleagues accuse Mr Jack of behaving like a "colonial general". His is a risky move, given Scotland has long enjoyed autonomy in many areas. But for bodies such as the Scottish Parliament to be constrained by law, which is reviewable by the courts, is not an assault on democracy but a precondition of it.

The clause that Mr Jack used to halt the bill is drawn from the same Scotland Act that created the Scottish Parliament, a settlement carefully drafted by Scottish politicians and endorsed by Scots in a referendum over 25 years ago. To argue that Scotland's constitutional order should change is legitimate. To claim it is an alien imposition is absurd.

The rhetorical shift reflects the pressure that Ms Sturgeon faces from impatient SNP members as the avenues to a referendum close. She has threatened to turn the next general election into a "de facto" vote on independence, a legally meaningless course.

Scottish nationalists regard their destiny as joining a family of modern European democracies. Yet Germans do not declare the death of democracy when their highest court strikes down the decisions of federal and state parliaments as *ultra vires*. When SNP politicians denounce procedural obstacles as thwarting the "will of the Scottish people", they resemble the English Brexiteers they hope to escape.

Sturgeon spoils for a fight

Industrial action

The going rate

A wave of strikes reflect a loss of faith in public-sector pay bodies

British employers lost 467,000 working-days to strikes in November, the highest in over a decade, according to figures released by the Office for National Statistics (ONS) on January 17th. That mark will almost certainly be breached before Britain's winter of strife is over. Scottish teachers, London bus drivers, nurses, courtroom staff and driving instructors were among those picketing this week.

More strikes are being called by the day. On January 16th teachers in England and Wales voted for seven days of walkouts. Some 100,000 civil servants in 124 government departments will strike on February 1st. The government sounds by turns emollient and aggressive: a bill that would force certain unions to maintain a minimum level of service during industrial action is now going through Parliament.

Grievances over pay lie at the heart of the disputes. Private-sector pay (excluding benefits such as pensions) increased by 7.2% in the year to November, the ONS said on January 17th, compared with a rise of 3.3% in the public sector, and a rise in consumer prices of 10.7%. But underpinning these grievances is a loss of faith in the pay review bodies (PRBS) that advise the government on what to pay public-sector employees. The trade unions say the PRBS lack clout and independence. On January 11th, 14 unions representing health-care workers said they would not submit evidence to the NHS PRB as it starts to weigh salaries for the 2023-24 fiscal year.

There are eight PRBS, covering the armed forces, doctors and dentists, other NHS staff, prison officers, teachers, police and the most senior public-sector managers. They typically number six to eight wonks and worthies, appointed by the government. The PRBS analyse evidence from the government, employers and unions, and commission their own research, before proposing pay deals.

There is not much evidence that the PRBS are ministers' cronies. In its report last year, the NHS PRB warned that an "exhausted and demoralised" workforce was leaving to take low-paid work in the private sector and putting patient safety in jeopardy. It rejected the argument that higher wages would mean fewer staff, arguing a reliance on expensive agency workers was a false economy. A PRB's job is to protect the interests of workers whose industrial muscle is weak, says Alasdair Smith, a former member of several—either because, like soldiers, they are banned from striking or because, like teachers, they have limited options in the private sector.

Yet it is also true that ministers have the upper hand in the process. Each year secretaries of state issue remit letters, stressing the factors that a PRB should consider, including what funding it considers available. Since the 1990s governments "have put consistent pressure" on them to rein in pay, says Mr Smith. "There is a culture of not rocking the boat too much." PRB members keep a low profile, and do not give interviews or appear before Parliament, which may contribute to an excessively consensual approach, he says. For chunks of the past decade, the PRB process has been bypassed altogether.

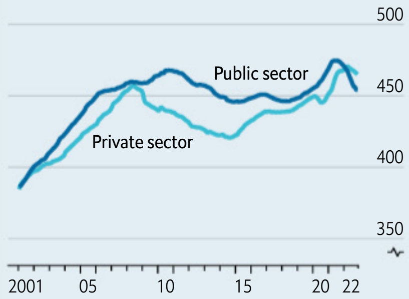
The work of PRBS can also be muddled by competing objectives. In its latest remit letters, British ministers stress that the PRBS must be mindful of the risk of stoking inflation through higher wages. The Scottish government, meanwhile, says that pay policy should help the poorest workers. But there are much better tools for tackling both those issues, says Ben Zaranko of the Institute for Fiscal Studies, a think-tank—namely, monetary policy and the benefits system. Instead, pay should be focused squarely on filling the jobs the government wants doing for a price it is willing to pay.

Perhaps the biggest issue is one of timing. When the Treasury gave its evidence to last year's pay round in December 2021, inflation was forecast to peak at 4-5%. By the time the NHS pay body recommended a rise of 4.8% in July 2022, an increase accepted by the government, inflation had breached 10%. The structure of public-sector budgets make things worse: although pay reviews are conducted annually, the departmental budgets from which salaries are drawn are fixed for three years. The solution may be a mechanism by which PRBS can recommend departmental budgets are reopened in extreme circumstances, says Mr Zaranko. Such sensible reforms are needed if confidence is to be regained. ■

Wage gauge

Britain, average weekly earnings, £, 2010 prices*

12-month moving average



Sources: ONS; *The Economist* *Deflated by CPIH

Housing

Pain and relief

A downturn in the housing market is under way. How much will it hurt?

Tanya McWaters, a 30-year-old television production manager, and her husband may have managed to buy right at the peak of the housing market. Like others their age the couple used their savings, as well as a little money from her parents—and, in their case, emptying his Australian pension pot—to cobble together the money for a deposit. They moved from a rented flat in London into a house in Bicester, near Oxford, last April. "I love it," she says. "[The mortgage bill] was the same as our rent for the one-bed in London."

Not for much longer. Having taken out a one-year fixed-rate mortgage as "the economy was so confusing at the time", they now face a steep rise in their housing costs. Even the best deals on offer would see the couple's monthly housing bill increase by £300 ($370), over 25% more than they pay now. "It's a bit grim," she says.

According to data from the Office for National Statistics (ONS), over 1.4m fixed-rate mortgages will come to an end this year. Nearly all of these mortgages have an interest rate of less than 2.5%; new two-year fixed-rate mortgages will typically cost more than double that, at about 6%. The average variable-rate mortgage, which tracks the Bank of England's base rate, is about 4.4% and will rise further as the central bank tightens monetary policy. Heftier mortgage bills will be painful. The big question for the economy is whether they signal something really ominous.

As in many other countries, housing transactions surged in Britain during the covid-19 pandemic. Low interest rates, a temporary pause in stamp duty on some property sales and the spread of working from home combined to fuel a dash for space. First-time buyers were enthusiastic participants in the market, accounting for more than half of all new mortgages during the pandemic. Between March 2020 and November 2022, the average cost of a house rose by a quarter, from £233,000 to £295,000, according to official statistics.

That surge in house prices is now firmly in reverse. "There is a big hit to affordability from higher interest rates," points out Andrew Burrell, a property economist at Capital Economics, a consultancy, which is forecasting a peak-to-trough fall of 12% in house prices. Savills, an estate agent, predicts that house prices will fall by 10% this year, the steepest drop in prices since the financial crisis in 2008.

But such a fall would take the price of an average house back only to the level it was at in the second half of 2021. For most of last year, house prices continued to rise. That all came to an end in October. "Mortgage rates spiked during the Truss turmoil," says Neal Hudson of Residential Analysts, a consultancy, referring to the effects of the disastrous mini-budget unveiled by the government of Liz Truss. The cost of government borrowing has since fallen as Ms Truss's policies were reversed, but mortgage rates have stayed high.

The wave of first-time buyers during the pandemic will be at the sharp end of this reversal because they have bigger mortgages and less equity. The only mortgage metric "flashing red", says Mr Hudson, is the ratio of loans to incomes. Low interest rates allowed borrowers to spend the same amount of their incomes on housing while taking out larger mortgages. Even modest rate rises, by historic standards, will mean budgets taking a hefty whack. According to the Resolution Foundation, a think-tank, the typical mortgage holder who renews their policy in 2023 will see a £3,000 annual increase in their bill, enough to reduce their after-housing-costs income by a hefty 12%.

"We can afford it," says Mrs McWaters, of the rise in her mortgage bill. She and her husband, who also works in TV, will reduce the amount they usually put into savings, towards their pensions, in order to tide themselves over. Others, however, will struggle. Debt-advice charities report that they are seeing a gradual increase in the number of homeowners asking for help; they usually make up only a small percentage of their caseloads. Morgan Wild, head of policy at the Citizens Advice Bureau, says many people show up after they fall behind on their energy bills, having tried to cut back elsewhere to keep their mortgages ticking over.

Stretched borrowers do have more options than in the past. In August the Bank of England scrapped an affordability test, introduced in 2014, that had restricted the range of mortgages that could be offered. The removal of this rule will allow some banks to offer more interest-only or variable-rate mortgages to those coming off fixed deals. "What the regulator and the banks are both thinking is that if this is a period of elevated rates, we don't want high levels of repossessions," says Lucian Cook, head of residential research at Savills. That is a lesson learned from the housing bust in the early 1990s.

For less than it cost last year

Trouble in the property market is unlikely to provoke the same kind of vicious cycle of bank failures as it did in 2008. Banks are better capitalised and mortgage standards have improved. In 2007 nearly 15% of mortgages had a loan-to-value ratio of more than 90%; in 2021, the latest year for which the Financial Conduct Authority, a regulator, has a full set of figures, the proportion was around 4%. Data from UK Finance, an industry body, shows that the average first-time buyer's mortgage in 2022 had a loan-to-value ratio of around 77%, compared with over 80% in 2007. Very few are likely to fall into negative equity.

That will not be great consolation to pandemic-era first-time buyers, who must pay higher bills for an asset that is worth less. But it offers some reassurance to regulators and economists. Housing will not help the economy this year, but it is unlikely to drag it into a deep recession. ■

Horse-racing

Equine decline

The sport is attracting fewer participants and smaller crowds. Why?

THE SPORT of kings is down on its luck. The best measure of the health of horse-racing is the average field size, the number of horses competing in a race. At 8.46 across both flat and jumps racing in 2022, this figure is at its lowest in Britain since records began in 1995.

The reasons include rising costs and climate change—the dry summer prevented many young horses from racing on hard ground. But the big problem is falling prize money, which declined by 11% between 2018 and 2021. Among Group 1 flat races, the sport's most prestigious events, the Epsom Derby rewards the winner with just over £900k ($1.1m); the winners of The Everest in Australia and of the Dubai World Cup get prizes of A$6m (£3.4m) and 26.5m dirhams (£5.8m) respectively. The disparity between Britain and the rest of the world becomes even more pronounced at Group 2 and Group 3 levels, which account for the majority of races.

Horses bred in Britain are increasingly sent abroad to chase bigger prize pots. Even the monarch is souring on the sport. Charles III has started winding down one of the world's oldest commercial thoroughbred-breeding organisations: almost 60% of the horses that were owned by Elizabeth II have been sold at auction since her death in September. Just Fine, the king's first winner, was among 14 of the royal horses sold at Tattersalls, a thoroughbred auction house, in November. It left the sales ring bound for Australia for 300,000 guineas (£315,000).

Reversing the decline in the sport's fortunes will not be easy. Racing in Britain is partly funded by the Betting Levy, a tax on gambling: fewer flutters mean less prize money and lower field sizes. As betting on other sports such as football, American football and Formula 1 has increased, gambling on horses has fallen, by 27% in the ten years before the pandemic. Declining attendance at racecourses has also hit the coffers. The number going to the races in the first half of 2022 was down by 9% from the same period of 2019; many things, from cost-of-living pressures to animal-welfare concerns, are cited as causes.

In response the British Horseracing Authority (BHA), the sport's governing body, has grabbed the reins. Late last year its board replaced a triumvirate, consisting of the board and two other BHA committees, which had made decisions by consensus. The BHA is currently reviewing the sport from top to bottom, and sweeping changes are planned.

To create a more appealing product for newcomers to racing, new penalties for breaking whip rules will come into force in February: for the first time in the sport's history, excessive use of the whip will result in disqualification, rather than a fine. The nuances of whip reform may not assuage public concerns about horses' welfare, but prize money is something the BHA can affect directly. It is set to thin out the racing calendar, which would allow the proceeds of the Betting Levy to be divided among a smaller number of races.

The BHA is also looking afresh at the revenue that racecourses generate from selling media rights to broadcasters and bookmakers. The way this money is divided is murky, but Ralph Beckett, a horse trainer and president of the National Trainers Federation, is among those calling for more of it to be directed towards prizes. The sport has been stuck in a doom loop for years; bigger rewards are its best hope of finding a way out. ■

Strictness in education

The silent treatment

WEMBLEY, NORTH LONDON

Whisper it (or you'll get a detention) but attitudes to discipline are changing

To understand how discipline is changing in British schools, go to Michaela Community School in north London. Among the first things you see are vast bright billboards. Whereas other schools coax pupils, cosset them with congratulations and avoid marking in red pen lest they sear young souls, Michaela has no truck with such softness. "I am the MASTER of my fate", reads one billboard, in unrepentantly large capitals. "Work HARD Be KIND", reads another. "Especially", barks a third, "when it is DIFFICULT".

And pupils at Michaela do work. HARD. As breathless news reports relate, they listen attentively in lessons; walk in silence in corridors; chant poetry in the lunch hall—and ace exams. Almost a quarter of its pupils are on free school meals, yet almost three-quarters of its A-Levels (exams usually taken at 18) were graded A or A*. It is rated "outstanding" by Ofsted, a state inspectorate, and its most recent Progress 8 score (a nerdy educational tool used to measure the value added by a school) is not just the best in the country but, according to Tom Bennett, a former teacher who is the government's behaviour tsar, "the best that there's ever been. It is extraordinary."

Michaela, which opened in 2014, is also extraordinarily contentious—because it, its exam-acing children and its charismatic head teacher, Katharine Birbalsingh, are at the centre of an argument over how strict discipline should be in British classrooms. The debate is bitter, has deep roots and is itself strikingly undisciplined: Ms Birbalsingh, an outspoken figure who stepped down as chair of the government's social-mobility commission this month, has received death threats.

One reason this debate is so bitter is that classroom politics in Britain are intimately tied up with class politics. Once, education in Britain was scrupulously egalitarian in its disciplinary methods, with the children of princes and paupers alike beaten till they bled ("the agony", wrote Roald Dahl, was "unbelievable"). Then, in the 1960s, grammar schools closed, new comprehensive schools opened and the stern old ways were comprehensively rejected by many.

At this time a comfortable Rousseauian consensus was growing, which held that children were eager sunbeams who really wanted to learn and that teachers merely had to assist them. Strict discipline, silence and chalk were out; games, group work and good vibes were in. Which, says Mr Bennett, is a pity, as the Rousseauian ideal is "rubbish. You can have dancing bears and holograms…but if kids don't want to learn they'll tell you to get stuffed."

Left-wing sociologists rejoiced at this turn (I have no interest, wrote one, in seeing "school as a launching pad for educational sputniks"). Traditionalists went into a moral panic. But the old methods weren't rejected by private schools. Pay enough money and you could continue to have your child caned until 1999. Private schools were seen to stand for odd uniforms, antiquated methods and excellent results; state schools conjured up an image of progressive methods and poor results. The fact that this was a gross over-simplification was irrelevant. For a time, a sign outside Michaela's premises read: "Private School Ethos—No Fees".

Momentum now seems to be with Michaela's approach. Walk into other high-achieving academies in London (King Solomon Academy in Marylebone, at which every pupil learns a musical instrument, is one; Mossbourne Academy in Hackney, another) and you are likely to see similar techniques. This is the rise, says Mr Bennett, of what you might call the "neo-strict" school.

The "neo-" bit matters. This is not Gradgrind. The old-fashioned version of discipline controlled largely through punishment. Neo-strictness does use sanctions but chiefly it weaponises praise. Merit points are handed out and children strive for them. When a question is asked in Michaela, every arm rises in unison.

Critics of neo-strictness argue that it leads to schools kicking out children who can't cope. But Michaela's exclusion rate, though higher than the national one, is restrained: there have been seven exclusions from the school over the past five years. And, says Ian Patterson, a former head teacher who now advises London academies, chaotic classrooms are "certainly not egalitarian": kids with settled home lives manage disruption better and disadvantaged ones flounder.

Moreover, children like discipline. What adults see as strictness, they often perceive as safety and the promise of success. Michaela pupils are unnervingly keen on their school. Your correspondent was shown around by a pupil who said that she wanted to be "a doctor or a surgeon" and study at "Cambridge or Oxford". Sociologists may not want to launch educational sputniks; children often want to soar.

The discipline debate is far from over but it is open in a way that it hasn't been in years. Back at Michaela the bell rings for lunch, and the children file into the dining hall where the lunchtime poetry recital begins. A young teacher stands at the front and shouts the first word of each line; the pupils respond with the rest.

Today, the poem is "Invictus". "Out—" he shouts; "—of the night that covers me," they shout back at once. On the poem goes, call and response, louder each line, until the final couplet. This, like everything in Michaela, is done in capitals. "I—" he shouts; "AM THE MASTER OF MY FATE," shout back 170-odd children. "I—" he shouts and, in capitals, the children shout back: "AM THE CAPTAIN OF MY SOUL." ■

Bagehot | Mo' money, fewer problems

To become more professional British politics needs more money

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At times it feels as if Westminster is awash with cash. Boris Johnson, the former prime minister, recorded the biggest single donation in British political history, when a crypto mogul handed over £1m ($1.2m). Moonlighting MPs have earned a collective £17m from second jobs since the last election. According to a handy new database put together by Sky News, a broadcaster, and Tortoise Media, a news firm, over £180m has flowed into Westminster since 2019, triggering a week of chatter about the unhealthy effects of Mammon on politics.

British politics does have a problem with money: there is not enough of it. Total political donations per year add up to roughly the cost of a competitive Senate race in America. A benevolent millionaire could fund almost all of Britain's biggest political think-tanks and have change left from £20m. Salaries for those working in government and Parliament are skimpy. British politics operates on a shoestring. Being cheap comes at a high cost.

Start at the bottom of the political food chain. There are many humiliations involved in being a ministerial aide, from serving as a metaphorical punchbag to helping a minister hone his conference speech while he strides around a hotel room in his underpants. To cap it off, considering the importance of the job, the pay can be lousy. Only a few top aides earn six-figure salaries. For the rest, pay ranges from £40,000 to £80,000, to help run departments with budgets that can stretch to over £100bn. In Britain it is quite common to find a minister trailed by a 20-something, not because they are especially brilliant but because they are the only one willing to put up with terrible conditions.

Away from the government front bench, things are even worse. Although opposition parties are handed "short money" from the state to fund their day-to-day parliamentary business, the amounts are stingy. Labour, which is odds-on to form the next government, recently searched for a new head of economic policy. The salary on offer was about £50,000, for a key role shaping the direction of a £2trn economy. The prospect of power may be enough to tempt someone to quit a well-paid career elsewhere. Equally, the weight of a mortgage may keep them where they are.

Things are no better in think-tank land. Even the largest ones have puny budgets. The most well-known, such as the Resolution Foundation, operate on budgets of less than £3m per year. Scrappier outfits get by on barely a tenth of that, relying on mischievous tweets by recent graduates to make a splash. Poor pay is near universal. A junior researcher can expect to earn about £26,000, an amount not much above the London living wage. When wonks are expected to be able to crunch numbers as well as any banker, hiring becomes tricky. Those with the right skills can find a job at a bulge-bracket bank in Canary Wharf that pays far more.

This matters. Good government requires a healthy stream of good ideas. Milton Friedman, a free-market economist, was right when he argued that in a crisis "the actions that are taken depend on the ideas that are lying around". But good ideas are harder to generate when the pay is poor. Germany solves this problem with generous state funding. America solves it by having plutocrats from across the political spectrum pump cash into think-tanks. Britain leaves the problem unfixed by not having enough of either. The result is a surfeit of think-tanks that produce worthy but thin work, or that chase headlines rather than solving deep problems.

A lack of money also dilutes the quality of the politicians tasked with putting those ideas into practice. When salaries were first introduced for MPs in 1911, they amounted to £400 per year or roughly six times the average wage of the time. Now an MP earns around £84,000, just over double the average full-time wage. (The days of being able to boost pay via dodgy expense claims are long gone, too.) Meanwhile, incomes for high-flyers in professional services have exploded in the past few decades. Lawyers, bankers and even accountants now command large salaries, pulling well ahead of former fiscal peers such as doctors and politicians. The opportunity cost of a career in politics is huge for the most able.

Pay the price

Pound-shop politics has upsides. Cheap elections are a blessing. A campaign in which £500m was spent would not produce a better government than one with a budget of £50m. People rightly fear an American-style free-for-all, with politicians dedicated to ceaseless fundraising in order to pay for an electoral arms race.

Skimping on salaries is undoubtedly popular. Politicians fall over themselves to forgo pay rises because voters loathe the idea. Higher pay for bag-carriers ranks alongside a puppy-cull for electoral popularity. Yet the public expects ever more of modern politicians. Their voting records are pored over; their inboxes are now stuffed with correspondence. Part-social worker, part-legislator, the life of an MP is an exceptionally busy one. On the one hand, voters demand professional lawmakers. On the other, they are not willing to pay the going rate.

Being an MP will always appeal only to a select few. After all, half the country hates you; and your colleagues are a self-selecting band of overly ambitious sociopaths. But better pay can make even horrid jobs appealing. Plumbers are paid well because they wade through effluent. In their own way, so do those in politics (indeed, one parliamentary candidate recalled being sent a photo of her election leaflet covered in a large human turd). Relying on public spiritedness alone to guide people into politics is as foolish as hoping goodwill will be enough to persuade someone to spend a life unblocking toilets.

A lack of money leaves much of politics the preserve of those who are rich, mad, thick or saintly. Sadly for Britain's body politic, the saints are outnumbered by the rest. A little extra money in Westminster would go a long way toward fixing this. If voters want a better standard of politics, someone has to pay for it. ■

Europe

Franco-German relations

Reaching over the Rhine

BERLIN AND PARIS

France and Germany stifle their spats to celebrate a 60-year friendship

BENEATH THE crystal chandeliers of the Elysée Palace on January 22nd 1963, the leaders of France and Germany signed a treaty to cement their friendship. On January 22nd this year, 60 years after Charles de Gaulle and Konrad Adenauer met, the two countries' current leaders will renew their predecessors' vows.

Emmanuel Macron and Olaf Scholz, as well as scores of their ministers and parliamentarians, will gather in Paris for a day of festivities and meetings designed to mark the resilience and richness of this cross-border tie, which has no real equivalent elsewhere within the European Union. The day will begin, symbolically, at the Sorbonne, where in 2017 a freshly elected Mr Macron first laid out his vision for a more sovereign Europe. Both leaders will speak, ahead of a joint cabinet meeting, and doubtless find a common language to talk about Europe over the coming decade.

Yet the summit comes at a challenging time for the bilateral bond. The meeting was originally scheduled for last October, but was cancelled by the French at short notice—ostensibly due to diary issues, but widely interpreted as a reflection of irritation at Germany. French officials were already aghast when Mr Scholz failed in August to mention France in a big speech on Europe in Prague, and in another at a French-German business club. (German aides say these were not "snubs".) They were even more so after Germany's unilateral announcement that it would spend €200bn ($216bn) to protect Germans from high energy costs, without warning France, as would be customary for such a budget-busting move.

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In truth, Russia's war on Ukraine has "laid bare Franco-German differences, and they are struggling to find common ground," says Tara Varma of the Brookings Institution, a think-tank. Foremost among these are defence and energy.

France is delighted that Germany is spending more on defence. The two countries have, at last, reached an industrial agreement to develop a joint next-generation fighter aircraft. Yet the lesson that Germany and much of eastern Europe draw from the war is that the continent is right to look to America and NATO for cover. To French chagrin, Germany has chosen to equip its air force with €10bn-worth of new American F-35 fighter jets. For Mr Macron, who has a French defence industry to protect and Europe in his veins, the lesson is rather different: that the EU should push even harder for "strategic autonomy", albeit in a way that is compatible with NATO, in defence as well as industry.

Such differences have prompted public irritation. Mr Scholz has paid a high diplomatic price for being slow to step up for Ukraine. He is under particular pressure from European allies to send German-made Leopard 2 main battle tanks, and to enable others, notably Poland, that need German re-export permission to do so. But many in his government are galled that, although Germany has provided far more overall aid to Ukraine than France, Mr Macron has often got more credit.

Take the president's recent announcement that France would deliver light tanks to Ukraine, just a day before Germany and America made similar offers. Ever self-critical, German commentators were quick to suggest that Mr Macron's move had "forced" a grudging Mr Scholz into action—something the chancellery in Berlin denies. "Macron knows we are eminently shame-able," says Thorsten Benner of the Global Public Policy Institute, a think-tank.

On energy, too, the war has exposed old disagreements. France's preference for nuclear power has for years rubbed up against Germany's firm rejection of it. Germany's reliance on cheap Russian fuel for its industry has forced a radical rethink of a strategy that kept it prosperous for the past 30 years. The pair have sparred in public over alternatives, notably an ill-fated plan to build a gas pipeline to France from Spain, which France squashed. "It's not good for Europe", declared Mr Macron, "when Germany isolates itself."

France and Germany often disagree. The strength of their tie is their ability to find common ground, and bring others with them. Yet the war has dragged Germany's attention eastwards. France likes to think it is always at the top of Germany's concerns, a sensitivity German leaders traditionally indulge. But with a wobbly three-way coalition government, Germany has been distracted. Gazing ever-inward, on January 17th Mr Scholz replaced one relatively obscure loyalist from his party, Christine Lambrecht, with another, Boris Pistorius, as defence minister.

Nor have the two leaders found much personal chemistry. Mr Scholz's persona is what Germans expect of a native of Hamburg: quiet pragmatism, a dry, tight-lipped formality and a slightly acid sense of humour. Useful in German politics, these qualities do not inspire passion, nor suit him to wartime leadership. For Mr Macron, who brims with energy and ideas and likes to speak his mind, this makes for a tricky partnership. The French, says one insider, find Mr Scholz unusually difficult to read.

The summit will doubtless disguise such troubles. Germany may be looking eastwards, and inwards. France may be strengthening other European ties: a new treaty with Spain, an upcoming summit with Britain. Yet the density of the link between France and Germany is unique. Both countries know that they are condemned to find a way to talk to each other, however tough that may be right now. ■

A wartime disaster

A helicopter crash outside Kyiv on January 18th killed at least 14 people, including Denys Monastyrsky, Ukraine's interior minister, as well as his deputy and other senior officials. The wreck landed on a kindergarten, killing at least one child. The head of the national police was appointed as Mr Monastyrsky's temporary replacement, but the loss may affect the country's war effort. Mr Monastyrsky was an important member of the national security council, and the interior ministry co-ordinates the national guard, police, emergency services and other forces. The cause of the crash remains unknown.

Russia's casualties

Invisible dead

SAMARA

As Russian families mourn, more mobilisation may be coming

FIVE FRESH graves break through the snow in Novokuybyshevsk, a village in south-western Russia's Samara region. "Denis, my son!" a woman wails. Not long ago, 27-year-old Denis was a dad and an engineer at the local oil refinery. In September he was drafted. By December he was in Ukraine. His military career lasted six days: he was stationed at the now infamous Makiivka military barracks when a salvo of HIMARS missiles struck it on New Year's Eve. His mother feels fortunate to have received his body whole. Other families' sons could be identified only by DNA.

The true death toll at Makiivka remains secret. Families are burying their sons in unadvertised funerals across Samara, which was home to most of the soldiers. Local authorities claim implausibly that just 89 men died, but refuse to publish full lists. Ukraine says at least 400 perished. Denis's parents agree that the numbers were probably in the hundreds.

Family members are reluctant to speak. But "Anna", the sister of one of the injured, who agreed to talk on condition of anonymity, confirmed that many relatives are angry. "The commanders blamed soldiers for giving away positions by mobile-phone use," she said. "In fact, it's a story of their criminal negligence." Anna's brother was blown clear by the blast and escaped with a shoulder injury. The soldier in the bed next to him died immediately. Anna does not understand what Russia is fighting for. Many relatives feel the same, she says.

An open letter from the families, published on a regional website on January 10th but since deleted, called on President Vladimir Putin to scale back the use of conscripts in his "special military operation". It is unlikely to have any effect. There are indications that a renewed wave of conscription is being planned. Ruslan Leviev, an open-source investigator, says in recent days Kremlin officials have stopped ruling out the possibility. One independent journalist reports that authorities in Yekaterinburg, Russia's fourth-biggest city, have set up tents in anticipation.

Russia has yet to deploy all of the 300,000 or so soldiers it mobilised in the first wave. Those who have arrived have stabilised the front, says Mr Leviev. But it is hard to imagine any sustained new offensive without a new call-up. A source in Ukrainian military intelligence insists that even a new wave of conscripts would have little impact: Russia's problem, he says, is with mid-level command, and cannot be solved by increasing the headcount. He nonetheless expects Russia to try to mobilise half a million more men for a fresh offensive in the spring.

The recent appointment of Valery Gerasimov, Russia's hitherto sidelined chief of the general staff, to head the operation in Ukraine may suggest an offensive in the making. It could also be an attempt to reassert the usual military chain of command over Yegveny Prigozhin and his Wagner Group of fighters. Many in Moscow are troubled by the influence of Mr Prigozhin's sadistic shadow army, which is leading the fight in Bakhmut and Soledar, the bloodiest section of the front lines.

If conscription resumes, thousands more men will try to emigrate. After the first mobilisation announcement on September 21st, an estimated 700,000-800,000 fled in one month. Others hid within the country, some in radical ways. Since September Adam Kalinin, an IT specialist, has been living in a forest somewhere in southern Russia. Speaking via an encrypted messaging app, Mr Kalinin said he has everything he needs: a tent, a sleeping bag and a workspace for his computer, which he runs on solar power. He recommended it for other draft-dodgers who cannot get out of the country (and who have some camping experience). ■

Liberating Ukraine

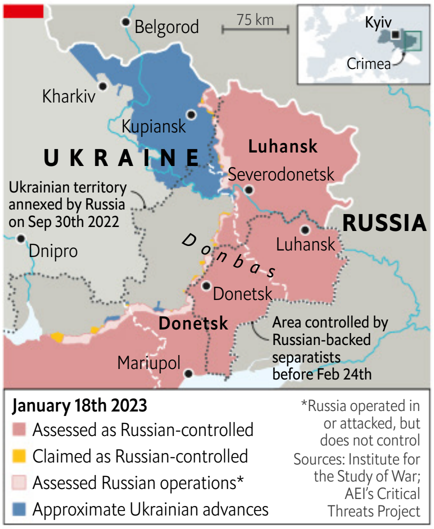
Uncertain allegiance

KUPIANSK

Some liberated areas face a loyalty test

NEAR KUPIANSK, an hour's drive from the Russian border, Andrei, a Ukrainian aid worker, was distributing sweets to children when he noticed some taking photos of him with their phones. A soldier told him they were sending them to Russian social-media channels, and possibly to hit squads. On another occasion he saw villagers refusing aid from Ukrainians. "They still miss the Russians," Andrei says.

Months since Ukraine recaptured Kupiansk, pro-Russian sentiment in the area remains high, says the town's acting mayor, Andrii Besedin. Russian shelling has destroyed about a third of the city; only 17,000 of its 57,000 pre-war residents remain. Officials think some still send information on Ukrainian deployments to Russian troops, less than 10km (six miles) to the east. Some Ukrainian troops say they were told not to accept food from locals, for fear of poisoning. A broadcasting tower in Belgorod, a city north of the border, pumps Russian propaganda into local homes. The Ukrainians have been unable to block the signal. "A large majority of the people here were pro-Russian" before the war, says Mr Besedin, and not much has changed.


Belgorod
75 km
Kyiv
Crimea
Kharkiv
Kupiansk
UKRAINE
Luhansk
Severodonetsk
Ukrainian territory annexed by Russia on Sep 30th 2022
RUSSIA
Dnipro
Donbas
Luhansk
Donetsk
Donetsk
Area controlled by Russian-backed separatists before Feb 24th
Mariupol
January 18th 2023
🟥 Assessed as Russian-controlled
🟨 Claimed as Russian-controlled
▨ Assessed Russian operations*
🟦 Approximate Ukrainian advances

*Russia operated in or attacked, but does not control

Sources: Institute for the Study of War; AEI's Critical Threats Project

Russian forces entered Kupiansk without resistance days after the invasion began. The former mayor and most of the city council collaborated with the invaders. Over 200 of the 214 city-council employees, along with the mayor, are believed to have escaped to Russia. The Russians launched a new radio station, distributed copies of the Russian constitution and Russian tabloids, and began to publish their own newspaper, *Kharkov Z*, packed with stories about Russia's heroic campaign to save Ukraine from "Nazis". To block news from the rest of Ukraine, they cut off mobile, television and internet access.

Not everyone bought into the propaganda. The locals your correspondent encountered mostly backed Ukraine; many of those who sided with Russia have fled. One of them used copies of *Kharkov Z* to roll cigarettes, another as kindling for his stove. Luda Klimovets, a housewife caring for seven dogs, 25 cats and a hedgehog left behind by her neighbours, says she used them as toilet paper.

Locals who opposed the occupation were often imprisoned or tortured. Vitaliy Sayapin, one of the few officials who refused to side with the Russians, spent over 100 days in a cell so crowded the inmates had to sleep standing up. Guards forced them to sing the Russian national anthem and Soviet folk songs. Those who refused were beaten. Electrocutions and mock executions were common. In between torture sessions, the Russians would stroll the corridor proclaiming that Ukraine's leadership had fled. On Russia's Flag Day, Mr Sayapin remembers, they offered each inmate two cigarettes.

Many residents travelled to Russia regularly and have relatives there. But Kupiansk is an exception: in most liberated areas, returning Ukrainian forces have been greeted as heroes. The invasion has alienated even Ukrainians once friendly to Russia. A missile strike on January 14th that killed at least 40 civilians in the city of Dnipro is just the latest atrocity.

But Ukraine ultimately hopes to reconquer Crimea and Donbas, regions occupied by the Russians and their proxies since 2014 and historically more sympathetic to Russia. That would entail a battle for hearts and minds. Russian propaganda "works with horrific results", Ukraine's president, Volodymyr Zelensky, told *The Economist* in an interview in December. Winning over Ukrainians who have spent nearly a decade exposed to it will be a challenge.

Reconstruction is crucial. "We know that Russia is darkness, and that Ukraine belongs to the civilised world," says Mr Besedin, the Kupiansk mayor, "but people need to see it with their own eyes." The authorities have distributed humanitarian aid and restored electricity and water to over 90% of households, but rebuilding takes longer than blowing things up. Oleh Synehubov, the head of the military administration in Kharkiv, the regional capital, says foreign donors offered books in Ukrainian for schools and libraries around Kupiansk. "I said it's a nice idea, but we don't have schools and libraries left." ■

Czech presidential election

There will be mud

A first-round draw augurs a nasty second round

PRAGUE CASTLE, the Gothic rockpile that looms over the Czech capital like a giant bat, is the official residence of the country's president. In a Kafkaesque touch, no president has actually lived there in decades. On January 13th and 14th eight candidates vied to become the castle's next official occupant, and in another Kafkaesque touch, none of them won. Andrej Babis, an oligarch who served as prime minister until the autumn of 2021, and Petr Pavel, a retired general, finished neck-and-neck in the first round of the election. With the second round scheduled for January 27th and 28th, Mr Babis has unleashed a viciously negative campaign. It will be a "uniquely disgusting" two weeks, predicts Karel Schwarzenberg, a former Czech foreign minister who ran for president in 2013 and now backs Mr Pavel.

This is the Czech Republic's third direct presidential election: a constitutional change in 2012 scrapped the previous system, a parliamentary process prone to back-room deals. Fully 68% of voters turned out. The candidates included Danuse Nerudova, an academic who hoped to become the country's first female president, and Jaroslav Basta, a far-right populist. Mr Pavel got 35.4% of the vote, Mr Babis exactly 35%. Ms Nerudova, whom polls had shown doing well, unexpectedly finished a distant third with 13.9%.

The president is head of state, but has limited powers. They include appointing judges on the constitutional court and board members of the central bank. Most presidents, including Vaclav Havel, a former anti-communist dissident, have been circumspect. But the incumbent, Milos Zeman, a hard-drinking populist who weathered several impeachment attempts, stretched the limits of his mandate. He meddled in foreign policy and flaunted his sympathies for Russia and China. (He changed his pro-Russian stance only after Vladimir Putin invaded Ukraine.)

Mr Zeman backs Mr Babis. The former prime minister got a boost a few days before the election, when he was acquitted in a long-running fraud trial related to €2m ($2.2m) in EU subsidies to one of his businesses. Piotr Fiala, the current centre-right prime minister who beat Mr Babis in 2021, is tacitly backing Mr Pavel, who promises to back progressive social policies.

Otto Eibl, a political scientist, says Mr Babis plays on voters' fears of inflation and the war in Ukraine. As prime minister he led the country poorly during the pandemic. An admirer of Donald Trump, he handed out MAGA-style red baseball caps emblazoned with the slogan "Strong Czechia". He embraces anti-immigrant policies and fostered close ties with Viktor Orban, Hungary's populist leader.

Rural, less-educated and poorer Czechs are drawn to Mr Babis's populism. Urban, educated, better-off and younger voters backed Mr Pavel or Ms Nerudova in the first round. Many of Ms Nerudova's voters will switch to Mr Pavel. Mr Babis, who owns two newspapers and the country's biggest commercial-radio station, kicked off his mudslinging right after the first round's results were announced. He insinuated that Mr Pavel was a spy and compared him to Mr Putin. He also claimed that he had hailed the Red Army's invasion of Czechoslovakia in 1968; Mr Pavel was seven years old at the time. Mr Babis later apologised.

Dirty campaigns are not new to Czech politics. In the presidential campaign of 2008 conservatives attacked Jan Svejnar, a liberal, for having a non-Czech-speaking wife. In the run-up to a parliamentary election in 2021, Mr Babis called the rival Pirate Party a "pro-migrant neo-communist group". No doubt he has similar lines in store for Mr Pavel. ■

Eastern Europe's infrastructure

Between three seas

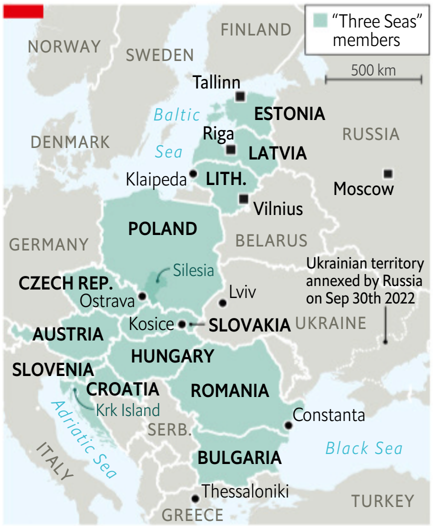
An east-west region discovers north-south links

WHY DO TRAVELLERS take the bus in the Baltic countries? Their capitals—Tallinn, Riga and Vilnius—are only about 600km (370 miles) apart, a perfect distance for fast rail. But the winding train journey takes 12 hours and includes several changes. This is part of a broader problem. Look at any map of infrastructure links in eastern Europe, be they road, rail or pipeline: most run east-west. A few slow or minor routes run north-south.

During the cold war, central and eastern European countries prioritised east-west corridors—those leading to Moscow. In recent decades their growing wealth made it possible to build a more omnidirectional web of cross-border links, but national squabbles got in the way. Now the war in Ukraine is prompting the region to push ahead with its neglected connections.

Eastern Europe's energy and trade flows look very different today from a year ago. In April Russia cut off gas supplies to Poland and Bulgaria, forcing them to fall back on connections with others in the region. When Ukraine's Black Sea ports were blockaded, trains and trucks could handle only a fraction of its grain exports. The country's largest steelworks had to ship its goods by rail to ports in Poland—and reload them at the border, where the railway changes from Russia's 1.52-metre gauge to Europe's 1.435-metre one. Some worried that naval conflict in the Black Sea could shut Romania's largest port, Constanta.

The turmoil has led to a flurry of new infrastructure plans. In May Denys Shmyhal, Ukraine's prime minister, said his country would begin rebuilding its railways to European gauge. There is talk of turning the western Ukrainian city of Lviv, where many of the country's businesses have relocated, into a hub with rail links to Kosice in Slovakia and Ostrava in the Czech Republic, as well as to southern Poland's Silesia region.



Weaning Europe off Russian hydrocarbons has meant new regional energy links, too. In 2021 Croatia opened a liquefied natural gas terminal on its island of Krk. Last year Poland inaugurated an undersea gas pipeline to Norway, as well as links to Slovakia and Lithuania. In October Greece and Bulgaria opened a new gas link. Even Serbia is seeking to reduce its reliance on Russia, its friend, by plugging into Europe's Southern Gas Corridor, says Olga Khakova of the Atlantic Council, a think-tank. Plans for fibre-optic and 5G connections spanning the region may take a while. But small projects are under way, says Viljar Veebel of the Baltic Defence College in Estonia.

One vehicle for co-ordination is the Three Seas Initiative (3SI), a forum of 12 EU countries spanning the Adriatic, Baltic and Black seas, founded in 2015. Its investment fund, set up in 2019, says it has raised at least $1.2bn. That is pocket change in the infrastructure world, and its flagship investments so far are small. (They include a Polish locomotive-leasing company, a data centre in the Baltics and some solar farms.) But central and eastern Europe has to date mainly been a recipient of western European largesse; 3SI is the region's first collective attempt to invest its own money.

Despite their obvious benefits, infrastructure links have often been held up by bickering. The idea for a highway from the Lithuanian port city of Klaipeda to Thessaloniki in Greece appeared in 2006. It took nearly a decade to sign a deal to begin work on Via Carpathia, slated to open in 2025. The expected debut of Rail Baltica, the Baltic countries' 870km high-speed railway, was pushed back from 2026 to 2030 after Estonia, Lithuania and Latvia squabbled over management, leading the EU to threaten to block funding for the €6bn ($6.5bn) project. "We will have flying cars before we get Rail Baltica," says Mr Veebel.

For 3SI, the main roadblock is not money but political solidarity. Croatia and the Czech Republic, among others, worry that Poland could use the forum to grind its axe with the EU. Those fears are calming as more powerful backers come on board. This summer America confirmed it will invest $300m in the fund. Japan, Germany and the European Commission have also shown interest in the initiative. As ships full of grain queue up in the Black Sea, the war is showing that better connectivity in central and eastern Europe will pay off far beyond the region itself. ■

Charlemagne | The Never-Never Land club

Countries that consider themselves “neutral” must adapt to a new world

Government policies come and go, the victims of trends and fickle public opinion. The Swiss attachment to neutrality has had more staying power than most. Historians disagree whether it was formally adopted in 1515 or merely in 1648, or perhaps even as recently as 1815. Either way the idea that Switzerland should steer clear of foreign military entanglements has proved nearly as durable as its Alpine backdrops and discreet banks. Other countries have copied it. Before Russia attacked Ukraine last February, half a dozen European countries described themselves as neutral. Once the approach had an enlightened tinge to it: the virtuous foreign policy of well-run Nordic types. These days it looks hopelessly naive, if not worse. Some countries have binned the concept while others are sticking to their pacifist guns.

Whether Switzerland—Europe’s 20th-most-populous country, with just 9m people—is pitching in to a conflict may scarcely be noticeable to either belligerent. Yet the question has gained unexpected importance in recent weeks. The Bern government’s attachment to neutrality includes not sending arms made in Switzerland to war zones, nor allowing countries that had previously bought Swiss arms to re-export them without prior approval. Such authorisation has been refused to Spain and Germany, which want to forward Swiss-made kit and ammunition in their arsenals to help Ukraine fend off Russia. Swiss obstinacy has been lambasted by those on the front lines. “Ukraine sees this not as neutrality but as undermining our defence capabilities,” tweeted Anton Gerashchenko, a government adviser in Kyiv.

Reports suggest the Swiss may find a way to circumvent their principles. That would be the latest blow to a policy which has not aged well. Five other countries have adopted some variant of neutrality in Europe, for different reasons. Finland and Austria were lumped with it to shake off the Soviet yoke: proclaiming themselves neutral was a condition for regaining their freedom after the second world war. Sweden has claimed neutrality for over two centuries; tiny Malta adopted it in 1980 to avoid getting crushed by cold-war rivalries. Ireland, out of the way and close to both America and Britain, has been neutral since at least the 1930s. (Cyprus is an honorary member of the club: it is not in NATO, but only because Turkey would block its accession.)

As war broke out on the continent, Sweden and Finland took the opportunity to join their non-neutral friends. Both applied to join NATO in May after public opinion swung against military standoffishness. The alliance wants them, but all 30 existing members need to ratify their accession. Turkey’s autocratic president, Recep Tayyip Erdogan, is holding Sweden to ransom, demanding it extradite Kurdish militants who have sought asylum there. A deal may be near; even if not, the Finns and Swedes have already picked their side. Finland has said it may offer advanced Leopard 2 battle tanks to Ukraine alongside other allies. Both Finland and Sweden have signed a security agreement with Britain, and are pondering one with America. (Arguably, joining the EU was itself a renunciation of neutrality, given that the club’s rules include a mutual-assistance clause.)

Finland has long sought to distance itself from the idea of neutrality, which was a reminder of how the Kremlin once circumscribed its foreign-policy choices. At least its “non-alignment” was not a way to scrimp on defence. Finland dedicates 2% of GDP to its military budget, in line with NATO guidance that only a handful in the alliance have met of late. That is perhaps unsurprising for a country with a 1,340km (830-mile) border with Russia. For other neutrals, the scrimping is part of the appeal. Sweden spends 1.3% of GDP, on a par with much-criticised Germany. Malta, Switzerland and Austria dedicated under 1% of GDP to their armed forces before the war; Ireland is the stingiest in the EU, at just 0.3%.

Apart from the Nordics, the neutral status quo looks set to endure without much questioning. Ireland has gone through diplomatic contortions to proclaim itself “not politically neutral, but militarily neutral”. Instead of sending guns to Ukraine it has delivered first-aid kits. Austria and Switzerland have reaffirmed their commitment to the doctrine. Both have offered their services as conveners of peace talks between Russia and Ukraine, a much-hyped traditional role for neutrals (other countries’ posh hotels are available if and when talks are afoot). “Austria was neutral, Austria is neutral, Austria will also remain neutral,” said its chancellor, Karl Nehammer, while pledging to boost military spending. Neutrality is popular and enshrined in its constitution.

Switzerland, for its part, recently reviewed its neutrality doctrine and found it to be suitable. It would aid Ukraine if the UN Security Council condemned Russia—not too likely, given that Russia wields a veto there. Its most important contribution to the war effort has been largely to mirror sanctions imposed by the EU. These have hobbled the trading of Russian oil in Geneva and frozen piles of oligarch cash stashed in Zurich. But populists have criticised even this as drifting away from non-alignment.

No war please, we’re neutral!

Neutrality looks increasingly like a simplistic answer to complex geopolitical questions. The security of Europe is being fought over in Ukrainian trenches. Any country on the continent declaring itself neutral about the outcome is announcing that its own safety is of scant concern. Non-neutrals resent this. Their guns are implicitly defending the likes of Austria, which get to splurge on more butter and boast of their virtue to boot.

Countries that declare themselves neutral can change their minds. Congress was so determined that America should remain unaligned that it proclaimed its neutrality in 1935, 1936, 1937 and 1939. Yet by 1941 it had joined the allies. Switzerland or Ireland throwing its weight behind Ukraine is unlikely to have the same effect. But it would be a welcome decision to join the real world. ■

Incomes

The unstuck middle

WASHINGTON, DC

Incomes are rising in America, especially for the poorest

Cardi B, better known for her punchy hip-hop than her economic analysis, recently observed that the price of a lettuce had soared to as much as $7. "If I think that shit is crazy, I can only imagine what middle-class people or people in the hood are mother [bleep] thinking," she said. Ms B is right. Paying that much for a head of lettuce is indeed crazy. Inadvertently or not, she also opened a window onto a more fraught topic than the price of greens: are incomes in America going up or down?

Answering this question might seem easy. Hourly wages today are, on average, about 15% higher than on the eve of the pandemic—the biggest increase over any three-year period since the early 1980s. But soaring prices for everything from vegetables to vehicles has reminded consumers that what really matters is how much they can actually buy with their paycheques. When looking at real earnings—that is, accounting for inflation—the picture is more complex. If anything, low-income Americans appear to have fared the best in the upside-down post-pandemic period. In the longer run, the range of estimates is so vast that some economists argue that median incomes have stagnated for half a century whereas others insist that the American dream of upward mobility is alive and well. A closer look at the data points towards the more optimistic end of the spectrum, albeit with some big caveats.

Much of the confusion stems from different ways of measuring prices. Media coverage of inflation typically focuses on the consumer-price index (CPI), a gauge of prices for a wide array of goods and services. An alternative, preferred by the Federal Reserve but not by headline writers (perhaps because of its ungainly name), is the personal-consumption-expenditure (PCE) price index. One crucial distinction is how often they are re-weighted to reflect changing consumption patterns: only once every two years for the CPI; monthly for the PCE. The latter is a more accurate snapshot of how people spend their money. To expand on Cardi B's point, the CPI in effect assumes that people go on buying lettuce even after it has become a luxury item, whereas the PCE allows them to replace it with more reasonable veggies.

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Such substitution adds up. Since April 2020, when inflation began to perk up, CPI-based wages are down by over 3%, whereas PCE-based wages are roughly flat. Over time the differences are even more stark. When adjusting by the CPI, people appear to make a bit less today than in 1970. Adjusted by the PCE, wages are about a quarter higher today (see chart 1 on next page).

That may not seem like much to cheer about, given that it works out to real wage increases of less than 0.5% per year for the past half-century. Yet it is not bad. The slowness is overstated by a dreadful stretch for workers from 1970 to the mid-1990s, a period when unions broke down and companies spent heavily on the labour-saving technology of the modern workplace. Partly thanks to that, since 2000 income growth has consistently been

▸▸

faster, working out to nearly 1.5% a year. That puts income growth in America near the top among large, wealthy countries.

The more serious problem is that although average incomes look pretty good in America, many people have not done so well. The gains have been disproportionately captured by the rich. In a report in November the Congressional Budget Office (CBO) examined changes in incomes—a metric that is broader than wages alone, including extras such as social insurance and capital gains. From 1979 to 2019 it found that real incomes for the highest quintile of households rose by 114%. Income growth for the remaining four-fifths of households was, by contrast, a paltry 45%.

Taxation and means-tested transfers mitigate some of this. The lowest quintile of income earners see their tax bills shrink while also receiving more benefits, especially health insurance. Medicaid, which covers some medical costs, is the country's largest and fastest-growing transfer programme. As a result after-tax income growth for the lowest quintile since 1979 amounts to 94%, roughly twice their pre-tax rate (see chart 2). But there are sharp limits to this redistribution.

A middle muddle

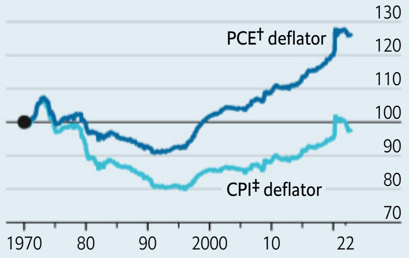
Shifts in taxation have failed to keep up with the explosive growth in incomes for America's wealthiest. The share of post-tax incomes going to the top 1% of earners rose from 7% in 1979 to 13% in 2019, while the share going to middle earners has fallen. For all but the lowest quintile, taxation has become less of an equaliser over time. Tax rates have declined for the wealthiest, giving them a bigger share of the country's post-tax incomes. That leaves America with the most unequal income distribution in the G7 group of rich countries.

Believers in the promise of America will note one major flaw in the foregoing analysis: the rich as a group may be getting richer, but the rich are not necessarily the same people today as they were yesterday. Put more technically, the composition of income quintiles changes when, for example, children make more (or less) than their parents. Studies show that nearly two-thirds of children born into the lowest quintile of America's income earners—many of them the children of immigrants—eventually rise to higher strata. Such movement is a wonderful thing. Unfortunately, there is not more of it. Raj Chetty of Harvard University has found that America's rate of upward mobility is roughly half that of Canada's.

Pick your deflator

1

United States, real hourly earnings*
January 1970=100, calculated using:

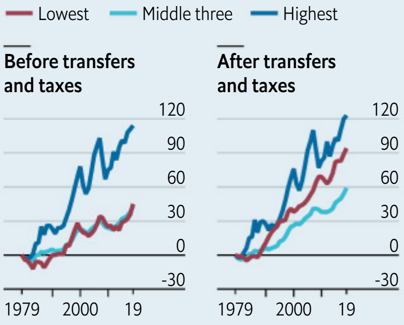


*Production and non-supervisory employees
†Personal-consumption expenditures ‡Consumer-price index
Sources: BEA; BLS

Before and after

2

United States, cumulative growth in average income, by income quintile, %



Source: CBO

So far, this is a mostly bleak assessment of income trends in America. But are things now improving? The recent CBO report shows that the distribution of after-tax income was more or less steady in the decade before the pandemic. That is, although America was not getting more equal, it was, for the first time since 1979, not getting much more unequal. Even before taxes, wage trends were a little rosier, too. In a paper published in October, Clem Aeppli of Harvard and Nathan Wilmers of the Massachusetts Institute of Technology found that earnings inequality reached a plateau after 2012. The gap between top and middle-income workers persisted, but low-wage earners began to catch up to the middle. This, they concluded, stemmed from a tight labour market: unemployment fell steadily from nearly 10% in 2010 to 3.5% in early 2020, a five-decade low.

These trends appear to have been amplified since the pandemic. Just before covid, wages for the bottom half of income earners were growing roughly half a percentage point faster than those for the upper half, according to data from the Federal Reserve's Atlanta branch. Over the past year the outperformance for the bottom half has widened to about two percentage points. David Autor of MIT and Arindrajit Dube and Annie McGrew, both of the University of Massachusetts, find that these gains have been caused almost exclusively by job switchers at the low end of the income ladder. This, they argue, could benefit the economy, because Americans are moving not only to better-paid work but also to more productive employers.

There are, however, two worries. The first is whether the good times can continue. Current wage growth is predicated on an ultra-tight labour market, which might stop if recession strikes (as many soon expect). Second, although the poorest Americans are doing well, the middle class is seeing less uplift. That even appears to be the case after accounting for inflation. Normally, rising prices hit the poorest the hardest. But research by Xavier Jaravel of the London School of Economics shows that over the past couple of years inflation has been particularly cruel for middle-income tiers in America, in large part because they seem to be more reliant on cars, and hence petrol, for getting to their jobs. Unlike $7 lettuce, that is not something they can quickly opt out of. It would also imply that while income stagnation in America is a myth, the squeezed middle is all too real. ■

Joe Biden's messy filing

Sloppy Joe

WASHINGTON, DC

The presidential mislaying of classified documents is infectious

PRESIDENTS HAVE mishandled official documents since long before Donald Trump was flushing them down White House toilets and hoarding others at Mar-a-Lago. Several took files (mostly non-classified) with them when they left the White House, says Jeremi Suri, at the University of Texas at Austin, as keepsakes or for their memoirs. Occasionally, as with Lyndon Johnson's obfuscation of classified Vietnam papers, they did so to keep unflattering information out of the public eye. The most infamous example, at least until the Trump saga, was the wiping of White House recordings in 1973, during the Watergate investigations into Richard Nixon.

Although the recent discovery of classified papers in Joe Biden's office and home probably has less sinister motives, it is embarrassing because he had recently berated his predecessor for doing something similar. The headlines got worse when the president sought to reassure the public by mentioning that he stored his Corvette in the same locked garage as the documents. It did not take long for pundits to contrast the FBI raid on Mr Trump's home with spoof images of Mr Biden driving a sports car with documents flying out of the back.

A week before the midterm elections, several classified documents were found by Mr Biden's personal lawyers as they ▸▸

cleared out his former office at the Penn Biden Centre, a think-tank in Washington, DC. This was not made public until this month. Then Richard Sauber, a White House lawyer, announced the discovery of a "small" second batch, this time in the garage and an adjacent room in the Bidens' family home in Wilmington, Delaware. Two days later Mr Sauber announced that five more pages had been found.

For Democrats, who have insisted that Mr Trump should face criminal prosecution for his mishandling of classified papers, this is horrible news. For Republicans, it is an unexpected gift—one enjoyed by Mr Trump. "When is the FBI going to raid the many homes of Joe Biden, perhaps even the White House?" he asked on Truth Social, his social-media platform. Other Republicans have demanded that the justice department treat Mr Biden with the same rigour as it has Mr Trump. In November the attorney-general, Merrick Garland, appointed a special counsel to oversee investigations involving the former president. Sure enough, on January 12th Mr Garland appointed a special counsel, Robert Hur, to review Mr Biden's case, authorising him to prosecute any federal crimes arising from the investigation. Mr Hur was appointed by Mr Trump as attorney-general for Maryland, so seems fairly independent.

House Republicans have also announced an investigation of their own. James Comer, the Oversight and Accountability Committee chair, has demanded the Biden administration hand over visitor logs to the Wilmington home. The White House denies these exist—presidents do not normally keep records for private residences. Asked on CNN why the committee was not investigating the files found in Mr Trump's home, Mr Comer said that his biggest concern was, "how there's such a discrepancy in how former President Trump was treated, by raiding Mar-a-Lago, by getting the security cameras, by taking pictures of documents on the floor, by going through [former first lady] Melania's closet. That's not equal treatment."

The appearance of hypocrisy, and the suggestion of a double standard among institutions such as the Justice Department, the FBI and the National Archives are at the centre of much of the public and (right-wing) media storm. Inevitably, baseless claims have been made tying the papers in the Bidens' home to the controversy surrounding their son, Hunter. An article on Fox's website speculated that, "Malign actors may well have gained access. The president's son, Hunter Biden, who is under criminal investigation for influence peddling schemes involving foreign entities, had routine and ready access."

Allies of Mr Biden have emphasised that the two cases are fundamentally different. Mr Trump tried to block attempts to recover the (hundreds of) documents held in his home and it took many months, and a search by the FBI, to get hold of them. Mr Trump made a strange defence, arguing that he had declassified all the documents he took. Mr Biden's team claims to have handed over the first batch of documents as soon as they were discovered, and the documents in the second location were found as part of a search of Mr Biden's properties instigated not by an FBI warrant but volunteered by Mr Biden himself.

Uncomfortable questions remain for Mr Biden. How did documents from the Obama presidency get to these places? Why were they (still) there? What did they contain? Why did it take until last week for all this to be publicly revealed? The newly empowered Republicans in Congress will make it their mission to pursue the answers and pick at any inconsistencies. The prosecution of Mr Trump for mishandling classified documents, which Democrats have pressed for, now seems less likely. ■

The far right

Proud, distracted boys

LOS ANGELES

How America's far right flits from issue to issue

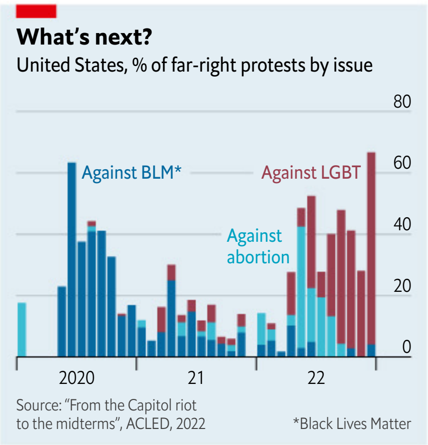
MORE THAN two years after supporters of President Donald Trump invaded the Capitol building, several of his most rabid fans are facing punishment. The former leader of the Proud Boys, and four of his associates, are standing trial for seditious conspiracy, or plotting to overthrow the government. It is the most serious offence levied by the Department of Justice (DOJ) against the insurrectionists. The trial kicked off on January 12th and could last for weeks. Two members of the Oath Keepers, another far-right group, were found guilty of the same charge in November, and could face up to 20 years in prison.

After January 6th, 2021, many far-right groups were temporarily scared into silence. But a new report from the Armed Conflict Location & Event Data Project (ACLED), which tracks political violence, suggests that these groups are mobilising again in different ways. ACLED began to collect data on America in 2020. Its recent report tallied events between the start of that year and the end of 2022 organised by scores of far-right groups, including the Proud Boys and Oath Keepers. Their activities include protests, recruitment, training, the dissemination of propaganda and acts of violence.

The report shows that the issues motivating far-right groups are shifting. Protests against lesbian, gay, bisexual and transgender (LGBT) Americans and their rights are on the rise. The number more than tripled in 2022—and they accounted for about two-thirds of all far-right protests in December. The geographical boundaries of such sentiments are also expanding. Activity among far-right groups was documented in 18 states last year—up from six in 2021. Last June, for example, members of a white-supremacist group were discovered in a lorry in Idaho. They had planned to riot at a gay-pride parade.

An examination of the issues animating right-wing extremists doubles as a timeline of the culture wars. After George Floyd was murdered in May 2020—and many Americans took to the streets to protest—demonstrations staged by far-right groups against the Black Lives Matter movement surged. Pro-Trump and "stop the steal" rallies proliferated before the ▸▸

The daft knight



What's next?

United States, % of far-right protests by issue

Source: "From the Capitol riot to the midterms", ACLED, 2022

*Black Lives Matter

2020 presidential election and continued after Mr Trump's defeat, culminating in the attack on the Capitol. Far-right groups then banded together to protest against covid-19 vaccines and public-health measures to curb the pandemic. After a leaked opinion suggested that the Supreme Court was poised to overturn Roe v Wade, rescinding the constitutional right to an abortion, anti-abortion events briefly dominated far-right activity, but subsided around the time it became clear that support for abortion bans would not benefit the Republican Party in the midterm elections.

The far right thus fixates on whatever controversy is dominating politics at the time. Ever since January 6th, experts suggest, extremists have been searching for another cause that will unite the various strands of a historically decentralised network of far-right groups. There are signs that some centralisation is happening. The data show a modest increase in far-right activity over the past year, from roughly 780 events in 2021 to 800 in 2022. But the number of groups organising these events is shrinking as people gravitate towards a small number of organisations such as the Proud Boys, the Patriot Front and the anti-Semitic Goyim Defence League.

Overall, though, the story is one of decline. The only state where more outfits were active in 2022 than in 2021 was Arizona, where about 90% of all recruitment to far-right groups last year took place. That is perhaps not shocking: Arizona's midterm elections were saturated with Republican candidates for statewide office who peddled conspiracy theories, including the "Big Lie" that Mr Trump won the presidency in 2020. ACLED's data suggest that the far-right has largely moved on from "stop the steal" rallies. Hostility to gay and trans Americans may be a passing fad, too. Americans who don't belong to extremist groups are moving in the other direction. Last year Congress passed the Respect for Marriage Act, which recognises same-sex unions. The far-right's paroxysms may be a last stand in a losing battle. ■

Universal basic incomes

Winning the lottery

CHICAGO

What no-strings cash schemes say about America's safety net

There were no giant cheques, but the people who filed into a conference room at the Cook County building in downtown Chicago to fill in forms on a snowy morning late last year had nonetheless won the lottery. On December 15th, 3,250 people were paid $500, either on special debit cards or by direct deposit into their bank accounts. They were picked randomly from over 230,000 applicants by Give Directly, a charity that has been brought onto administer the county's universal basic-income scheme.

Applicants had to meet only three criteria to qualify: they needed to live in Cook County (which covers the city of Chicago and a large portion of its suburbs) and have a household income of less than 250% of the federal poverty line—about $69,000 for a family of four—and not be claiming from any other similar schemes. The $500 payments will continue monthly for two years. Recipients can do whatever they want with the money, and will continue to receive it as long as they stay in the county.

Such universal basic-income (UBI) schemes have been adopted by dozens of local governments across America in the past couple of years. They are paid for by the flood of money made available by the federal government for relief schemes during the worst of the pandemic. The Cook County programme is by far the largest yet. Some revenues from the taxation of marijuana have been set aside to continue the scheme when the federal money runs out. Toni Preckwinkle, the county president, says that her aim for the scheme is to test "good ideas that percolate up from the bottom", with the hope that "eventually the federal government takes them over." Yet in a way, the appeal of creating UBIs comes not out of hope, but out of frustration: the failure of the American welfare system to protect the poorest people.

Americans who fall on hard times can access a panoply of different schemes, at both a local and a federal level. There are disability benefits; food stamps; section 8 housing vouchers; Medicaid; and unemployment insurance (which is paid for and administered by states, but in crises often expanded federally). Most of this comes with an extraordinary amount of bureaucracy, however, and many people fall through the cracks—for example, because they do not have a permanent address, or they fail to file the right forms, or they do not qualify. Local governments generally do not have the data to even identify the people most in need.

That helps to explain why Cook County—together with several other municipalities—has turned to Give Directly, which until recently mostly worked in poor countries using money from donors. According to Sarah Moran, the charity's American country director, working in America requires making trade-offs. In its schemes in Kenya, the charity would sign up every family in a single village—local residents would help guard against fraud. Running a lottery open to such a large number of people however requires more formal checks, but having too many undermines the simplicity of the system. Under the scheme, the winners are asked to provide bank statements or payslips to prove eligibility—but people who cannot supply them, such as undocumented immigrants, can qualify by being interviewed. An algorithm is used to try to spot fraud—such as people applying with multiple identities.

The recipients filling in their forms last year were, unsurprisingly, delighted. Among them was Jasper, a 32-year-old father of three who, with his disabled wife and children, has been living in various family homeless shelters for several years, after losing his factory job and then, when he failed to pay his subsidised rent, his section 8 housing. "When I first got the email, I thought it was a scam", he says. Without a permanent address, he has struggled to find a new job or even open a new bank account; without an income, he cannot get a new home. Food stamps cover the family's basic needs, and he intends to save the payments until he has enough to put down a deposit for an apartment, and in turn start looking for jobs. The UBI will help him; but such people perhaps should not have to win a lottery to get assistance. ■

Started out with nothing

Education, allegedly

Batty

WASHINGTON, DC

Corporal punishment is far too common in one state in particular

According to this year's student handbook, wearing "sagging pants" or being too touchy with a crush in the hallway is enough to get a teenager paddled by the school principal in Union County, Mississippi. A first-time dress code infraction, public display of affection, repeated tardiness or failure to hand in homework three times in nine weeks makes children eligible for corporal punishment. Beatings in the state's schools are not uncommon. In 2018, the year for which the latest numbers are available, 69,000 American children were hit by public-school staff—30% of them in Mississippi. Though intentionally wounding a pet cat is punishable by six months in prison, teachers in Mississippi can legally strike kindergarteners with wooden paddles for speaking out of turn.

Corporal punishment in public schools is legal in 19 American states; in private school it is permitted in all but two. For a wealthy country that is unusual. In Britain the practice was banned in 1986. Canada did away with it in 2004. In all of Europe and most of South America and East Asia it is outlawed. But since there is no federal prohibition on the books, American students, mostly in the South, can still be hit. Though others disregard it, America is the only country not to have ratified the United Nations' treaty to protect the rights of children, which prohibits the practice.

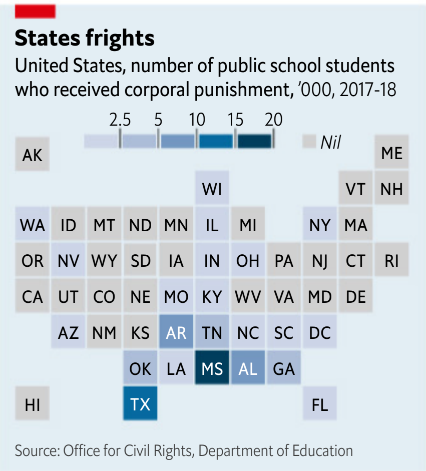
The legal parameters for corporal punishment in Mississippi are vague. School boards and superintendents tend to set the guidelines. But according to Mississippi state law, as long as the act is not deemed "malicious", teachers and administrators cannot be held liable for harm done to children. There are no statutes to specify which instruments can be used, how many times a day a child can be paddled or how old they must be.

In Mississippi black children bear the brunt of the beatings. Though just under half of the state's students are black, in 2018 nearly two-thirds of those hit in school were. The majority were boys and one in six were disabled. Parents can put their children on the "no paddle list"—a practice encouraged by a school in Kentucky if the child "bruises easy", suffers from severe depression or has been physically abused—but amid the back-to-school chaos many forget to submit the necessary form. The deadline to do so in the Covington County, an hour southeast of Jackson, is the second Monday of the school year and parents have to renew the request annually. The opt-out policy means some parents do not even realise that they have agreed to let their child be spanked.

In 2020 Kiory Baugh, then an ace 2nd grader in Grenada, Mississippi, was paddled by her principal even though she was on the no-paddle list. When Kiory came home from school she was in so much pain she could not sit down. The school told Julia, her mother, there was no need to take her to the hospital. Julia took her to the emergency room anyway, where the doctor told her he would have called the police if she had been hit outside of school. She missed seven days of classes to recover. After Julia complained to the district, Kiory's teacher failed her. That summer Julia moved the family to Arkansas, where corporal punishment is less common.

That's a paddlin'

Why don't American schools spare the rod? Teachers in states with greater shares of evangelical protestants are more prone to paddling. In the 1990s Irwin Hyman, a school psychology professor at Temple University, attributed the link to the religious right's obsession with sin and punishment. But the racial history of physical retribution is impossible to ignore in the Deep South. A 2021 paper published in *Social Problems* found that each historical lynching of a black person increased the incidence of modern-day corporal punishment for black students in that county by 7.5%. The effect for white students was smaller and statistically weaker.



States frights

United States, number of public school students who received corporal punishment, '000, 2017-18

Source: Office for Civil Rights, Department of Education

Consent from parents also perpetuates violence in schools. Children from blue-collar families are expected to be deferential and compliant, according to research by sociologist Annette Lareau. Discipline is paramount in working-class homes where parents tend to have little time. And some spank more than others. Black parents use corporal punishment more than twice as much as white ones. They smack their boys to teach them not to misbehave on the streets, where the consequences could be deadly, says Ellen Reddy, the head of a coalition to end corporal punishment in Mississippi. "The black community needs a narrative change around our relationship with our children," she says. "We must undo those beliefs."

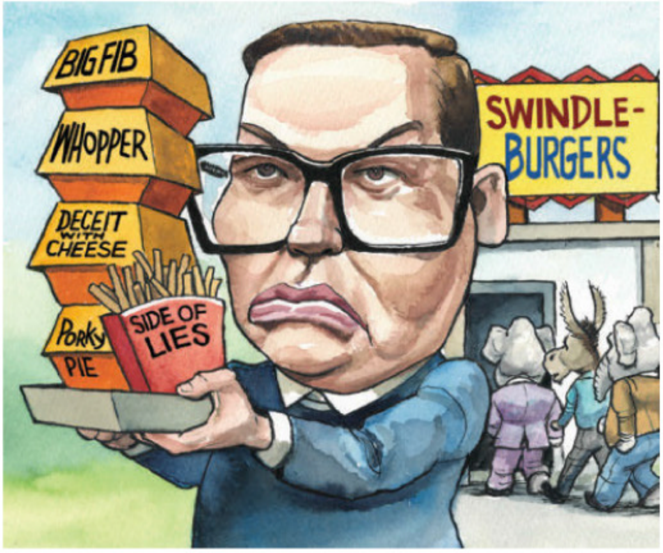
For reformers like Ms Reddy there is little hope the law will change. Back in 1977, when corporal punishment was legal in all but two states, the Supreme Court ruled in *Ingraham v Wright* that hitting children in school did not qualify as "cruel and unusual punishment". Children, the opinion declared, were not protected by the 8th amendment, which spared prisoners from physical abuse. Many have since challenged corporal punishment under the substantive due process clause, arguing that the practice violates a child's right to bodily autonomy. The only judicial circuit in the country that has ruled against that argument is the Fifth circuit, representing Louisiana, Mississippi and Texas. Making paddling unconstitutional would require a mood-change among judges in the Deep South or a reversal of precedent in the Supreme Court. Neither seems imminent.

Instead, advocates have turned to politics. In 2019 the Southern Poverty Law Centre, a civil-rights group, got the Mississippi legislature to outlaw hitting disabled children in public schools. In recent years Louisiana, Oklahoma and Tennessee have done the same. While the unpalatable image of smacking a child in a wheelchair resonated with state legislators, forbidding it for all children is trickier. That is where Congress could come in. In 2021 Democrats in the House and Senate introduced a bill to eliminate corporal punishment in schools, but the proposal had few co-signers and never got a hearing.

Though the Union County school district superintendent claims that corporal punishment is "seldom used", government data show that in the 2017-2018 school year there was a paddling nearly once a day at the county high school. Viral videos from Florida and Georgia show wailing five- and six-year-olds begging the grown-ups not to hurt them. Those who campaign against school beatings in America hope that one day there will be parity. Behaviour that counts as criminal assault if done to an adult, they argue, should not be permitted in the classroom. ■

Lexington | The end of trust

George Santos is the right man for a democracy in which winning matters above all



WHY DO THE MANY lies of George Santos matter? Maybe some of Mr Santos's constituents, in a district stretching along the North Shore of Long Island, voted for him in November because they were impressed he was a volleyball star at Baruch College and worked at Goldman Sachs, though none of that is so. Maybe they voted for him because he claimed to be Jewish, though he says now, with Seinfeldian sangfroid, that he meant only that he was "Jew-ish". If such qualities did in fact seem like reasons enough to cast a ballot for someone, well, the voters deserve what they got.

But those qualities were probably not why most voters supported him. During the campaign his opponent raised doubts about his biography, as did a local newspaper, the *North Shore Leader*, which noted an "inexplicable" leap in his reported assets from zero to about $11m in two years. The national press exposed some of his shady business dealings, and Democrats branded him a "flat-out liar". The *Leader* went on to endorse the Democratic candidate, saying it wanted to support a Republican but that Mr Santos "is so bizarre, unprincipled and sketchy that we cannot".

What seems certain is that, unlike the *Leader*, the majority of voters in New York's third district, which includes part of Donald Trump's home borough of Queens, did prefer a Republican regardless of how sketchy he might be. They were swept up in a wave of discontent that washed through the Democrat-dominated, troubled state of New York. The Republican agenda appealed to them, and Mr Santos, in his first votes, has supported it.

But there is an even more troubling frame in which to view what Mr Santos calls his "résumé embellishment". The voters also preferred Mr Santos, by a margin of more than seven points, at least in spite of—though probably because of—a much more destructive and transparent whopper that he told, that Mr Trump won the 2020 presidential election.

After running for the same seat in 2020 and losing, Mr Santos appeared at a rally in Washington on January 5th 2021, the day before the attack on the Capitol, to declare that his own election, along with Mr Trump's, had been stolen. Calling Mr Trump "the best president in modern history since Abraham Lincoln and Ronald Reagan", Mr Santos asked, "Who here is ready to overturn the election for Donald J. Trump?" As a teller of tall tales, the man was not exactly hiding his light under a bushel. "You can't make this stuff up!" Mr Santos declared at that rally— surely a contender for his most shameless lie.

This is why the outrage of the press and the Democrats over Mr Santos is so poignant. Since he ran again, and won, they have not just torn away his veil of autobiographical humbug but turned his deceit into a national scandal. Yet given Mr Trump's enduring success at warping reality, this blow for justice seems even less satisfying than catching Al Capone for tax evasion. It is more like hounding one of Capone's accountants for jaywalking.

None of this excuses Mr Santos. His lies do matter, but not really for what they reveal about him. That such a person should represent Americans in Congress is a national disgrace. But it is also fitting, because he represents something true and awful, particularly about the Republican Party, yet also about America, a nation lousy with misinformation, also known as deceit.

"In law and in journalism, in government and in the social sciences, deception is taken for granted when it is felt to be excusable by those who tell the lies and who tend also to make the rules," Sissela Bok, a philosopher, wrote in her landmark book "Lying: Moral Choice in Public and Private Life". Writing in the late 1970s after the deceptions of Watergate and the Vietnam war, Ms Bok was trying to make sense of the collapse of trust in American institutions.

Ms Bok added a new introduction a decade later, after the Iran-Contra affair, and another a decade after that, once President Bill Clinton admitted he had lied about sex with an intern. Now—in the wake of the Iraq war and Mr Trump, Bernie Madoff, Q-Anon and Sam Bankman-Fried, after social media has turned so many Americans into deceptive brand ambassadors for themselves—it may be time for a fourth introduction.

Without trust in veracity—"a foundation of relations among human beings"—institutions collapse, Ms Bok wrote. She placed particular responsibility for the fraying of trust on politicians, partly because political lies, even when thought trivial by those who tell them, spread so far and are so widely imitated. "When political representatives or entire governments arrogate to themselves the right to lie, they take power from the public that would not have been given up voluntarily," she wrote.

Chance on fire

That is what Kevin McCarthy, the speaker of the House, is doing by defending Mr Santos as innocent until proven guilty of a crime. In prioritising his fragile majority, Mr McCarthy is conceding that power matters more to him than veracity. The speaker has blown a chance to restore some trust, in himself and Congress.

Joe Biden has a chance of his own. He is not the résumé-embellisher he was when he first ran for president, in 1987, and claimed degrees and honours he had not earned. But he still tells the occasional fable about himself, and he has also lied at points about the economy and the pandemic. Now it appears the White House misled Americans by withholding news for two months that classified documents were found in Mr Biden's private office and home, the first of them almost a week before the midterms.

There is no sign Mr Biden deliberately held back documents, as Mr Trump did. But unless the White House comes up with a better explanation for its long silence than it has so far, Mr Biden should own the deception, and apologise. Mr Biden is no George Santos or Donald Trump, but deceiving the public to advance a political agenda should not be graded on the curve. It is always wrong, and America could do with a demonstration of virtue in leadership. ■

Middle East & Africa

Syria and Turkey

The art of forgetting

DUBAI

Turkey is eyeing reconciliation with a Syrian regime it once sought to topple

THEY WERE once friends, but even a good therapist might call their relationship hopeless. For years they traded insults. One used terms such as terrorist, butcher, baby-killer; the other had his own choice slurs, from thief and murderer to "small-time employee of the Americans". Words are just words, but there were actions too: it is hard to forgive a friend for supporting men who want you dead. But in diplomacy everything can be forgiven, or—at least officially—forgotten.

With Russia's encouragement, Syria and Turkey are edging towards rapprochement. Last month their defence ministers and spy chiefs held their first public tête-à-tête in more than a decade. It was followed by rumours that their foreign ministers might do the same—and then perhaps their presidents. Or perhaps not: the foreign ministers' meeting has been repeatedly delayed. They have reasons to seek reconciliation, but there are also obstacles.

Whether it happens or not, the mooted meetings say much about the state of Syria. Twelve years after the first protests against him, you can view Bashar al-Assad in two ways. One is as a survivor who weathered an insurgency, kept his grip on power and is slowly emerging from isolation. The other is as a beggar with few real friends and a shattered country. Both are true. Mr Assad won the war but is losing the peace.

It is easy to see why the Syrian president wants to reach out to Turkey, which controls more than 5% of Syria's territory (with a quarter of its population). Mr Assad would like the land back. It would also be a diplomatic coup to restore ties with a country that supported the opposition—and which is a NATO member, to boot.

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Recep Tayyip Erdogan, Turkey's president, has his own reasons. The 4m Syrian refugees in Turkey have become deeply unpopular, a useful issue for his opponents to hammer ahead of elections in a few months' time (see special report). His ruling Justice and Development party would like voters to think that normalisation with Mr Assad will solve the refugee problem, even if, in reality, that is unlikely.

Other countries are urging them on. One is Russia, which played a decisive role in helping Mr Assad survive the civil war and maintains deep (if complicated) relations with Turkey. It would relish the sight of a Western ally embracing a Western pariah. Also keen to play mediator is the United Arab Emirates (UAE), which reopened its embassy in Syria in 2018 and last year welcomed Mr Assad on his first visit to an Arab country since the uprising began. Abdullah bin Zayed, the UAE's foreign minister, flew to Damascus on January 4th for talks with Mr Assad.

Even if the leaders of Turkey and Syria do meet, expectations would be low. Syria wants Turkey to leave the territory it con- ▸▸

trols. Mr Assad would then need to defend the border and rein in the People's Protection Units, or YPG, a Kurdish militia that controls a chunk of Syria's north-east. He is probably too diminished to manage that. Even if he gets a photo-op with Mr Erdogan, in other words, it is unlikely to lead to a Turkish withdrawal.

This is becoming a pattern. Mr Assad is emerging from isolation in the Middle East, if not the West, but has little to show for it. He no doubt hoped that restoring ties with the UAE would open a gusher of aid and investment. It did not. Even if American sanctions were not a concern (and they are), Emirati firms are not queuing up to pour money into a war-torn kleptocracy. Old friends of Syria are not much help either. Russia never invested much. It did snap up a few key sectors, such as sweetheart deals for oil-and-gas exploration off the Mediterranean coast and phosphate mining. But these are meant to turn a profit for Russia, not revive the Syrian economy.

Cold, hard cash

The same is true of Iran, which has struggled to keep its economy afloat since Donald Trump withdrew from the nuclear deal of 2015 and reimposed American sanctions in 2018. Iran has been Syria's main oil supplier, but in recent months it has sent less. What oil Iran can export it would rather send to China, which buys it at closer to the market price—and pays upfront.

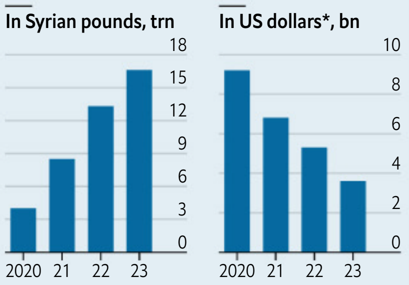
The fuel scarcity has, in effect, brought Syria to a halt this winter. Blackouts stretch for up to 22 hours a day, even in Damascus. Drivers queue for hours to find petrol. In December the regime announced unexpected holidays because of energy shortages. Schools and government offices were shut and public transport halted. The price of firewood has soared as families burn whatever they can to keep warm.

With few sources of hard currency, the regime's finances are a mess. (Syria's main export is Captagon, an amphetamine.) On January 2nd it devalued the official exchange rate by 33%, to 4,522 Syrian pounds to the dollar, still a good bit stronger than the black market, where the rate sits around 6,500. Last month Mr Assad approved a budget worth 16.6trn pounds, 24% up on the previous year—in local currency. In dollar terms it is worth about one-third less (see chart). The amount earmarked for subsidies is 12% lower than last year. The UN's World Food Programme says that 90% of Syrians now live in poverty, and that the prices of some basic foods rose by 800% between 2019 and 2021.

For some of the regime's foes, particularly in Washington, this is a sign that isolating Mr Assad is working: if living conditions get bad enough, they reckon, people will rise up again. That view is unpopular with Syria's neighbours and even with a growing number of anti-Assad Syrians, who reckon that desperate people scrounging for firewood do not make good revolutionaries. At least so far, the latter camp seems correct. There have been scattered protests in Sweida, a restive southern province, but nothing that poses a real threat to the regime.

That should be small comfort for Mr Assad. He may no longer be persona non grata in regional capitals, but he has yet to find anyone willing to sink billions into rebuilding his ruined country. If Syria is coming in from the cold this winter, it is only as a figure of speech. ■

The ups and downs
Syria, budget



*Based on the official exchange rate
Source: Ministry of Finance

Israel's judiciary

Judges' dread

JERUSALEM

The new government has the Supreme Court firmly in its sights

BINYAMIN NETANYAHU'S latest government has lost no time getting to work. Much attention has been paid to the far right and ultra-religious parties in his coalition, which have won control of big ministries. But the appointment of Yariv Levin, a member of Mr Netanyahu's Likud party, as justice minister may have the most profound effect on Israeli democracy.

Mr Levin is determined to curb the powers of the country's robustly independent Supreme Court. The new minister wants to introduce an "override clause" which would allow a simple majority in the Knesset, Israel's parliament, to pass laws deemed unconstitutional by the court. Under his plans the court would no longer be able to nullify government decisions on the ground of "reasonableness". Politicians would appoint judges. The government's legal advisers, currently an independent group, would be replaced with political appointees. A ruling by the Supreme Court on January 18th, blocking the appointment of one of the new government's senior ministers because of his conviction for tax fraud, has exacerbated matters.

Israel's lack of a formal constitution and its unicameral proportional-representation election system, which usually leads to coalitions with a number of small but politically powerful special-interest parties, mean its Supreme Court has long been highly interventionist. Israeli politicians of all stripes have bridled at the court's reach. Israel's founding prime minister, David Ben-Gurion of the centre-left Labour party, skipped the Supreme Court's opening. The new Netanyahu government is made up largely of politicians who object, on principle, to the interventions of unelected judges. They are adamant that they are upholding true democracy.

Israel's judges disagree. On January 12th Esther Hayut, the president of the Supreme Court, in a rare public criticism of government policy, called Mr Levin's plan "a mortal wound to the independence of the judiciary". Were it to pass, said Ms Hayut, it would "change the democratic identity of the country beyond recognition".

The changes would mean the removal of any checks on the government's power, argues Suzie Navot, a constitutional lawyer and vice-president of the Israel Democracy Institute, a think-tank. The plan has rejuvenated the fragmented centre-left opposition. On January 14th around 80,000 protesters gathered in Tel Aviv and other cities to fight the government's plans.

Mr Netanyahu is undeterred. The following day he described the election in November as "the mother of all protests" and claimed millions had voted to reform the legal system. "We are not even touching the Supreme Court's powers of administrative review," insists the chairman of the Knesset's law committee, Simcha Rothman, a member of Religious Zionism, a far-right bloc. He ridicules cries that these changes will make Israel less democratic. He claims that no other court in the world uses a comparable "reasonableness" test, or vets its appointments in the manner of the Israeli one.

In the past the independence of Israel's legal system has allowed it to hold the government, as well as the country's leaders, to account. One former prime minister was convicted of corruption. A president was jailed for sexual assault. Mr Netanyahu himself is facing charges of bribery and fraud. The proposed changes would not affect his case directly, but it is hard to avoid the impression that he has returned to office with a score to settle with the judges. Mr Netanyahu once presented himself as a champion of the Supreme Court's independence. Whether he has genuinely changed his mind or done so for political expediency, that position no longer suits him. ■

What's in a name?

A Gulf apart

Iraqis are backing their neighbours who call the waterway the Arabian Gulf

Its waters are beguilingly calm. But a tempest is brewing over their name. Iran insists that the waterway that divides the country from its Arab neighbours should be known as the Persian Gulf. Most Western cartographers agree. But across the sea, Arabs are angling for it to be called the Arabian Gulf. (Google Earth hedges its bets by using both names.) A natural barrier for centuries of Arab-Persian rivalry, the waters reflect increasingly troubled relations.

The latest catalyst is a football tournament. For the first time in decades Iraq has been hosting the Arabian Gulf Cup, which involves all the states bordering the waterway, bar Iran. It has been keen to show where its loyalties lie. "Today we're part of the Arab system and we're eager to maintain our relations with the states of the Arabian Gulf," said Iraq's prime minister, Muhammad al-Sudani, ahead of the opening ceremony in Basra, the host city, which is near the border with Iran. Other Iraqi politicians have chimed in. "Welcome to the states of the Arabian Gulf," tweeted Muqtada al-Sadr, a cleric who heads Iraq's biggest group in parliament.

Iran is crying foul. It has shown treaties purporting to prove that the Gulf has been Persian since Darius the Great in the fifth century BC. It has also summoned Iraq's ambassador, denounced Iraq in Iran's parliament and projected the words "Persian Gulf" onto a football stadium in Tehran, the capital. "It has been and always will be Persian," insists Alireza Salami, a tetchy Iranian MP, who says Iraq must apologise.

Iran's sense of grievance is all the more bitter because Mr Sudani's government had been hailed as the most pro-Iranian since Shah Abbas conquered Baghdad four centuries ago. One of Iran's largest trading partners, Iraq is also the only other Middle Eastern state ruled by Shia Muslims. And it has 120,000 fighters who profess loyalty to Iran's supreme leader, Ayatollah Ali Khamenei. That is even more than Hizbullah, Lebanon's pro-Iranian Shia militia.

However, the economies of the oil-rich Gulf states offer Iraq juicier investment opportunities than Iran, which is hampered by Western sanctions. And though most of Basra's inhabitants are Shias, like their Iranian neighbours across the border, many look to the football cup to revive the happy memories of Kuwaitis and Saudis, who follow the Sunni version of Islam but still used to come to the city for fun.

Powerful wet stuff

This time tens of thousands of fans jammed Basra's corniche to cheer on their teams from across the so-called Arabian Gulf. "Iran's occupation has been a disaster for Iraq's economy and Arabic culture," says Talib Abdulaziz, a Basra poet, referring to Iran's political influence. Three decades after its invasion of Kuwait made Iraq a pariah among Arab states, the country is, he says, "coming home". ■

Sudan

La résistance

KHARTOUM

How young activists toppled a genocidal dictator

Civil-society activism in Africa can sometimes seem like an exercise in empty sloganeering: "mobilising the grassroots", "empowering the youth", and so on. Not in Sudan, where in recent years thousands of neighbourhood "resistance committees" have sprung up throughout the country. Forged in 2018 in the furnace of revolt, they began as autonomous networks of local protesters aimed at toppling Omar al-Bashir, an Islamist despot accused of genocide by the International Criminal Court, and at shepherding the country towards democracy.

Four years on, their revolution is unfinished. In 2019, after protesters had taken to the streets for months, Sudan's generals gave Mr Bashir a final shove and seized power. They have clung to it ever since. Nonetheless, the committees offer a glimpse of how ordinary people were able to come together to fight for freedom.

In parts of Sudan, committees can be found at every administrative rung down to the village, each with its own rules governing its affairs. Over time they have become more sophisticated. Many have elected separate field, political, liaison and media officers. Some provide first aid or welfare, such as handing out fuel and flour.

But their core business is still organising demonstrations. Since the generals' latest coup, staged in October 2021, the committees have brought people onto the streets almost every week. "It basically takes a WhatsApp message and we can shut down all the roads in Sudan," says Ahmed Ismat, a spokesman for a committee in Khartoum, the capital.

The committees are distinctive in several ways compared with other youth movements in the region such as the "Qeerroo", an ethnic-nationalist organisation of young men in neighbouring Ethiopia. For one thing, Sudan's committees have no single figurehead. Decisions are taken collectively, by an elaborate if time-consuming process of local consultation. Members' views from marginalised states such as Darfur, where a government-backed militia has raped and butchered for years, have been given special weight. "They have more at stake, they matter more," says Mr Ismat.

Young women, too, are unusually prominent. When it is time for a protest, it is usually they who sound the *zaghrouta*—a high-pitched ululation that brings people to the streets. Many are in positions of authority. Sajida al-Mubarak, a medical student, is just 23 years old. But as a senior spokesperson for an influential committee in Khartoum, "she'd be my boss," notes 37-year-old Waleed Adam, an activist.

In December the generals and leaders of the civilian opposition struck a new pact that is meant to lead to elections, a fully civilian government and the withdrawal of the army from politics and the economy. As part of it, talks are still under way on sticky issues, such as the prosecution of some generals for genocide and crimes against humanity. But the committees see the process as merely the latest stitch-up by a coterie of ageing generals and politicians in Khartoum. "We are sick and tired of people gathering in closed rooms and giving us orders," says Ms Mubarak. Many suspect, for instance, that a deal granting an under-the-table amnesty to the top generals has already been negotiated.

What the committees are articulating, instead, is a vision of politics that overturns the old model of "one person who calls all the shots", says Mr Adam. Rather than wait for the old guard to hand down a new federal constitution, the committees have been drafting their own. This includes radical proposals to tackle the root causes of Sudan's recurrent crises. Members like Nabeel Gasim, from a Khartoum suburb, believe the committees should seize back control of formal politics by trying to win seats in a future legislature. "The committees are transforming from being a mobilising force into an overtly political organisation," notes Kholood Khair, an analyst in the capital.

Yet some reckon that the committees are a busted flush. Street protests against the agreement reached in December were more muted than before. Internal fissures are widening. Some members argue that the deal should be given a chance. Several committees refused to sign a draft constitutional charter published in October, complaining that it had been drawn up without enough consultation.

Even so, the movement remains a force to be reckoned with, so long as Sudan's democratic transition seems to be stalling. "We are building a state," says Ms Mubarak. "We won't stop until our goals are met." ■

Transnet

Off the rails

PONGOLA

The disintegration of South Africa's freight rail threatens the country's industrial base

THE ROADS in the north of Kwa-Zulu Natal (KZN), South Africa's second-most-populated province, were once sedate. Lorries carrying timber or sugar cane from nearby plantations would trundle past, overtaken occasionally by tourists heading to game reserves. But these days hundreds of trucks laden with coal roar through small towns on their way to the port of Richards Bay. In September one lorry rammed into a pickup in the oncoming lane, killing 20 passengers, near the town of Pongola. "Our roads aren't meant for this amount of traffic," says Mike Patterson, from the local chamber of commerce. "The coal should be taken by rail."

Indeed it should. But South Africa's freight rail network is in such bad shape that firms are struggling to move their goods. In 2017 trains hauled 81m tonnes of coal to export terminals. This year about 54m tonnes will go that way; lorries will carry only another 9m. The decline reflects a missed opportunity: international coal prices soared last year after Russia invaded Ukraine. The gap between what coal miners could dig and what they could export last year represents a loss of at least 80bn rand ($4.7bn), estimates Jan Havenga of Stellenbosch University. Other miners and manufacturers report similar deficits. The total hit to South African firms from lost exports and the extra costs of going by road will amount to about 400bn rand in 2022 (6% of GDP), says Mr Havenga.

Many people, including those outside South Africa, have heard of Eskom, the state-owned electricity utility with a market niche in keeping homes dark. Transnet, a less familiar state-owned enterprise which operates the freight rail network, as well as ports and pipelines, is a similar mess. And its woes are just as consequential for South Africa's economy—and that of the wider region. So worried are miners, the industry most dependent on Transnet, that in December their lobby group asked its board to sack its boss, Portia Derby, warning that the firm faced bankruptcy. (She remains in her job.)

Train geeks will happily tell you all the historical reasons why running South Africa's rail network is not an easy task. In the 19th century British colonists laid "Cape gauge" railways to get diamonds and gold out of the country's hinterland. This narrow gauge was fine in the days when the alternative was an ox wagon. But today most other countries have wider gauges and as a result their trains can carry heavier loads. In the 20th century during apartheid, or white rule, governments indulged farmers by building a dense but uneconomical network that stretched to remote rural areas with little freight traffic. Today South Africa has 0.6% of global GDP but 2% of the world's rail network. It has about half of all the kilometres of rail in sub-Saharan Africa. All of it, no matter its profitability, requires upkeep.

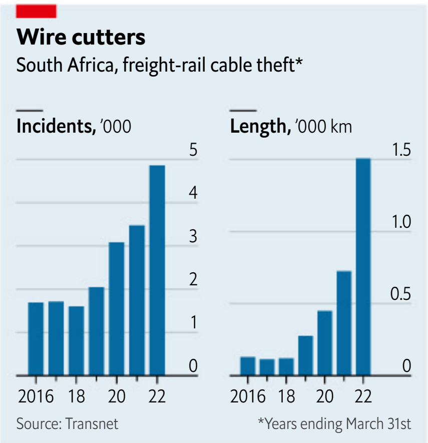
When it came to power in 1994, the African National Congress (ANC) took over the supervision of Transnet, which four years earlier had been carved out of the Department of Transport. Transnet veterans advised the new government to allow the company to let rural lines rust and focus on the profitable coal and iron-ore railways. The ANC declined to do so. Instead Transnet eventually showed the typical characteristics of state firms under the ruling party: neglect, patronage and corruption.

During the era of "state capture" under Jacob Zuma, South Africa's president from 2009 to 2018, Transnet accounted for 72% of all irregularly awarded contracts, forensic auditors told an anti-corruption commission. The largest dodgy deal involved kickbacks tied to the purchase of more than 1,000 overpriced locomotives, mostly from China. The scandal not only hurt Transnet's balance-sheet, but also brought thousands of trains to a halt: the Chinese firms stopped supplying spare parts after new managers cancelled further locomotive deliveries. Today Transnet has just 1,600 working locomotives, down from 2,300 five years ago.

Vandalism is another scourge. In the financial year ending last March 31st, 1,500km (930 miles) of copper cable was stolen, says Ms Derby. "It has to be part of syndicated crime," she says.

Short-sighted management matters, too. Over the past decade Transnet has almost doubled its wage bill, while cutting spending on maintenance, according to the African Rail Industry Association (ARIA), an industry body. Ms Derby concedes that the amount spent on maintenance is "quite disastrous"—roughly 30% of what it needs, she estimates. A strike in

The great train robbery



October ended with another pay bump for staff. Yet, as at Eskom, experienced engineers are in short supply.

The effects of negligence are evident. The average distance travelled by locomotives every month is almost a third less than five years ago, reckons ARIA. Mining firms are scrambling for alternative outlets. There is the coal cavalcade in KZN. Chrome miners truck the metal to the border with Mozambique, where it is loaded onto trains heading for Maputo. Some Manganese is shipped through Namibia. Yet these workarounds are not enough.

Network defects

Transnet is paid to move things, so when it carries less freight, it makes less money. In the financial year ending in March 2021 it posted a loss for the first time in more than a decade. In October the government announced it would give it 5.8bn rand—its first direct bail-out in decades.

To her credit, Ms Derby, appointed by Cyril Ramaphosa's government in 2020 to clean up the mess of the Zuma years, recognises her firm's problems. She says miners are "rightfully upset", adding that the network "is too big for the South African economy; it needs to be scaled back." Ms Derby says she also wants to allow more private firms to use Transnet's network.

Over the past few years several other African countries, such as Mozambique, Tanzania and Zambia, have allowed "open access" to their rail networks. These countries sell slots on the tracks to private operators, which in turn bring fresh investment. Last year the South African government published a white paper promising to implement the idea. Yet progress on passing a bill has moved about as slowly as a coal truck through KZN.

South Africa has world-class miners, manufacturers and farmers. But if exporters cannot get their goods out of the country, they cannot make any money. South Africa is regularly referred to as sub-Saharan Africa's most industrialised country. That is still true—for the moment. ■

Education in Zimbabwe

Cluck-cluck economics

GOROMONZI

Why Zimbabwe's schools have taken to selling chickens

THE JOB of a head teacher involves hiring teachers, disciplining pupils and placating parents. It does not normally include selling chickens. But that was one of several side-hustles run by Evermore Chakwizira, who until last year was the head of Chinyika High School in Goromonzi, 40km (25 miles) east of Harare, Zimbabwe's capital. Since 2019 his school has sold hundreds of chicks a week at the local market. During the covid-19 pandemic, when children were at home, fluffy poults took up residence in the classrooms.

The school has other businesses, too. It used the money earned from selling chicks to buy sewing machines to make face-masks and uniforms for schools across the province. Its latest schemes are to manufacture bricks and breed tilapia fish.

Zimbabwe's education system was once the envy of the continent. As a result the adult literacy rate (90%) is still much higher than the average in sub-Saharan Africa (67%), according to the UN's cultural agency, UNESCO. But under Zanu-PF, the ruling party, schools have fallen to pieces. Most have businesses of some sort. Without them schools would collapse entirely.

The right to a basic education is enshrined in Zimbabwe's constitution. But government schools are not free. Parents cover 96% of schools' non-salary costs. Overall they contribute more than the state does. On average families in the countryside pay several hundred dollars a year for secondary schooling, a huge amount when 40% of people live on less than the equivalent of $2.15 a day. Though the government is supposed to pay the fees of the poorest pupils, the payments are often late or insufficient, or never arrive.

The next lesson is counting chickens

That is because Zanu-PF has run Zimbabwe's economy into the ground through venal misrule. High inflation has eroded the value of teachers' salaries. The rise in local prices from 2019 to 2020 meant that the education budget, nearly all of which goes on salaries, fell by more than half when measured in American dollars, the only currency trusted by Zimbabweans all too familiar with hyperinflation.

A teacher at another rural school says that her salary is worth the equivalent of $107 a month, down from $500 a few years ago. She says that some teachers who depend on taxis to get to school travel in the boot of the vehicle, as that costs half of a normal fare. An education official from a rural district admits that teachers can no longer afford to send their own children to school, before adding that salaries are less than what it would cost to buy bread for a family for a month.

Desperate teachers have resorted to a practice euphemistically known as "extra lessons": they only teach children whose parents pay them an extra fee. At another rural school teachers have taken a group of these fee-paying children out of their classroom to be taught under a tree. The poorer pupils are left unsupervised. This neglect makes things worse for destitute kids. More than a quarter of school-age children do not attend class because their parents cannot afford the official charges. Of those who do go to school, about 15% drop out before the end of their fifth year. In 2016 this figure was close to 1%.

Chinyika High School's enterprising initiatives allowed it to build new classrooms and buy textbooks. Though its efforts are laudable, they are hardly the basis for a functioning education system. Often the means to get schemes off the ground come from politicians eager to be seen to be doling out patronage. The first 1,000 of Chinkyika's chicks were donated by the local MP. Yet "there isn't enough patronage for everyone," says Obert Masaraure, the president of the teachers' union. Bigwigs may pay for chicks but not the feed, making the project redundant. In other cases projects start promisingly but fail quickly, as when a bureaucrat responsible for delivering chicks as part of a government programme gave them to a relative instead.

Ahead of elections later this year Emmerson Mnangagwa, the president, has pledged again that primary education will be free. But Zimbabweans have learned their lessons. They know that, when it comes to schooling, his government has only a poultry offering. ■

The Economist

SPECIAL REPORT:
Turkey

→ January 21st 2023

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Erdogan's empire

Caution: low-hanging fruit

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ECONOMIST
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Out with the old

Approaching its centenary, Turkey faces an election that could decide its future as a democracy, argues Piotr Zalewski

THERE IS NO getting around the Kulliye presidential palace on the edge of Ankara, Turkey's capital, on foot. Black minivans pick up visitors, whisk them through a tunnel and underground car park, and deposit them in one wing. Above ground, endless carpeted corridors connect 1,100 rooms spread over 300,000 square metres of space, four times the size of Buckingham Palace. A mosque towers over the grounds. Security guards, sporting beige fatigues and expertly trimmed moustaches, zoom around in armoured vehicles. Foreign dignitaries calling on President Recep Tayyip Erdogan are welcomed by 16 costumed warriors, each representing a Turkish empire from the Huns to the Ottomans.

Closer to the city centre is an unassuming pink building, the Cankaya mansion, which was the residence of Kemal Ataturk, modern Turkey's founder, and his successors for over 90 years. With one exception. In late 2014, months after being elected president for the first time, Mr Erdogan moved into the newly (and, says a court ruling, illegally) built Kulliye. Cankaya then served two prime ministers before Mr Erdogan made the job redundant. The mansion has become a symbol of a bygone era.

Later this year Turks will celebrate the centenary of the day when Ataturk, having fended off an invading Greek army, as well as the British, French and Italians, proclaimed the Turkish Republic and became its first president. What Ataturk would have made of today's Turkey is a fascinating question. He would surely be moved to see his portrait in every office and classroom, his signature emblazoned on sweatshirts and the country stand to attention every November 10th, the day of his death nearly 85 years ago. He would have been awed by its transformation from a hobbling agrarian economy into a regional powerhouse and the most populous country in continental Europe (Turkey's population of 85m has overtaken Germany's.)

But he would recognise little else. For almost 20 years Mr Erdogan, who first became prime minister in March 2003, and then president in August 2014, has been the country's all-dominant figure. Initial fears of his Islamist agenda may have proved exaggerated, but his autocratic bent has become ever clearer. Turkey now has an executive presidency, which Mr Erdogan has exploited to combine the roles of president, prime minister, party chairman and de facto central-bank governor. The army, once a big political actor, has been tamed. Mr Erdogan has a new foreign policy that prizes autonomy from the West and favours armed intervention, and a new economic model that treats low interest rates as the cure for, not a cause of, galloping inflation. Turkey even has a new name. In May 2022 Mr Erdogan decreed that it should be known in English as Türkiye, its Turkish name.

The new Turkey Mr Erdogan once promised, which he plans to govern for the foreseeable future, is hardly a finished product. But many of its building blocks are in place. The Kulliye has become its symbol and nerve centre. Over the past ten years power has ebbed out of other state institutions and into the hands of the president and his courtiers, friends and family. Mr Erdogan has the last word on almost all public policy. As prime minister, he re-

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stored the central bank's independence. As president, he has made it in effect into a government agency. The foreign ministry, once a bastion of the secular establishment, is now little more than his foreign-policy secretariat.

A similar fate has befallen the ruling Justice and Development (AK) party. "The AK party was never and will never be a one-man party," Mr Erdogan said in 2014. This was hardly true then and is manifestly false today. There are divisions and competing factions within AK, but no room for dissent. The party is entirely beholden to Mr Erdogan, as is a big part of its base. "If the president says this is blue", says an AK MP, holding up a white napkin, "then people will say it is blue."

Checks and imbalances

Constraints do exist on Mr Erdogan's power. One is the economy. Reckless interest-rate cuts have sustained high growth, but at huge cost. Inflation peaked at 85% last autumn before easing to 64% in December, according to official measures. Unofficial ones put it much higher. New government handouts and large increases in the minimum wage, meant to offset plummeting living standards, have put additional upward pressure on prices. New rules forcing banks to buy government bonds and companies to borrow only in lira have also raised fears of a credit crunch.

A second is the ballot box. Parliamentary and presidential elections are due in June, though they are likely to be brought forward by at least a month. His latest spending spree has earned Mr Erdogan and AK a reprieve, as his poll rating recovers. The share of Turks who disapprove of the government's handling of the economy dipped from 75% in July to 62% in November. But polls suggest that the Turkish leader is still likely to lose to any of the opposition's chief presidential contenders, while AK and its coalition partner, the Nationalist Movement Party (MHP), are on course to lose their parliamentary majority. By the time Turkey formally turns 100 on October 29th, Mr Erdogan may be out of office.

Betting against Turkey's leader is a dangerous business, however. Mr Erdogan has won ten parliamentary and local elections, two presidential ones and three referendums. He has survived mass protests, corruption scandals, a turf war with the powerful Gulenist movement and a violent attempted coup. He has done so through repression and censorship, but also through ruthless pragmatism, solid political instincts and his own charisma. No politician in Turkey can command a room or a crowd like Mr Erdogan, and none can campaign as relentlessly.

Mr Erdogan has also ensured that elections are fought on his terms. The president and the AK party commandeer state resources for their campaigns and exploit the media as public propaganda. Only about a tenth of news outlets in Turkey qualify as independent or opposition-leaning, and even these often steer clear of official red lines such as government corruption or criticism of Mr Erdogan. The internet, once a refuge for critical voices, is now anything but. Most evidence levelled against the 200,000 people investigated on charges of "insulting the president" since 2014, an offence liable to up to four years in prison, consists of social-media posts. A law criminalising the spread of "fake news" has given the government new powers to police Twitter or Facebook.

Mr Erdogan has also learned to extract political dividends from the use of armed force. Turkey has launched four military operations in northern Syria, mostly against Kurdish insurgents whom the government labels terrorists (but America considers allies against Islamic State). After a deadly bomb attack in Istanbul in early November, which the government immediately blamed on the Kurdistan Workers' Party (PKK), the armed Kurdish separatist group, and the People's Defence Units (YPG), the group's Syrian franchise, a fifth offensive may now be in the offing.

Finally, Mr Erdogan has used the courts to stack the decks in his favour. Over three years ago, he tried to rob an opposition leader, Ekrem Imamoglu, of victory in Istanbul's mayoral election. In December Mr Imamoglu, who could be the strongest candidate to oppose Mr Erdogan, was given a prison sentence and a ban from politics, though both may be overturned on appeal. The Kurdish People's Democratic Party (HDP), many of whose leaders have been locked up for years, may also be closed.

This special report argues that Turkey's democracy, though damaged, endures, making the outcome of the election no foregone conclusion. But the stakes could not be higher. Another five years of "Erdoganismo" would push the country more overtly towards autocracy. Already, the patronage networks over which Mr Erdogan presides are so entrenched that Turks fear the government might go to extremes to hold on to power. They also struggle, after two decades of Mr Erdogan's rule, to picture what a country without him might look like. Many of the changes Mr Erdogan has made, especially in foreign and security policy, will stay.

What happens in Turkey matters to the world, and especially to Europe. The war in Ukraine has highlighted Turkey's importance to NATO and to Black Sea security, despite the country's ambiguous relationship with Russia. For the European Union, Turkey is a first line of defence, not always a dependable one, against Islamist extremism and illegal immigration. Turkey's comatose membership talks with the EU are encouraging European governments to play down the country's human-rights record and focus on issues like border security and intelligence co-operation instead.

Turkey's reach extends to the Caucasus and Central Asia, where Russia's influence has begun to wane, but also to Africa, the Middle East and the western Balkans. In the past year, Turkey has mended fences with Israel, Saudi Arabia and the United Arab Emirates, and it seems close to reconciling with Egypt and Syria. Criss-crossed by pipelines bringing oil and natural gas from Russia, the Middle East and Central Asia to Europe, Turkey has aspirations to be a transit country for the wealth of hydrocarbons buried under the east Mediterranean.

In one decade Turkey has seen record numbers of refugees, terror attacks, an attempted coup, a state of emergency and covid-19. Now new problems loom. The most urgent is the economy. ■

A country in a whirl

The economy

Into the unknown

A bizarre monetary policy has left an economy in need of urgent repair

A COUPLE OF years ago Mehmet Arslan, an architect in his late 30s, and his wife Mediha could afford to buy a flat in Istanbul. No longer. Mr Arslan's salary rose by 30% in the past year, but inflation has been at least twice that. House prices have soared by even more, the result of higher construction costs, a low housing stock, and a spike in demand, mostly from Turks hoping to protect their savings from inflation. In the 12 months to October, property prices in Istanbul shot up by 241%, according to Endeksa, a consultancy. Mr Arslan's salary now barely covers the rent and other living expenses. "We've given up hope of owning a house," he says.

Their predicament reflects an economic experiment gone wrong. Mr Erdogan believes the remedy for inflation is to make money cheaper. Over the past year he has put his theory, which is about as popular among economists as alchemy among scientists, to the test. As other central banks have sought to rein in inflation by raising interest rates, Turkey's has done the opposite. The bank has slashed its benchmark interest rate by fully ten percentage points since September 2021, to 9%. This has sustained growth, which may have been 5% last year, after 11% in 2021. But it has also pushed inflation to the second-highest level in the G20 after Argentina, and nearly 13 times the central bank's ostensible target.

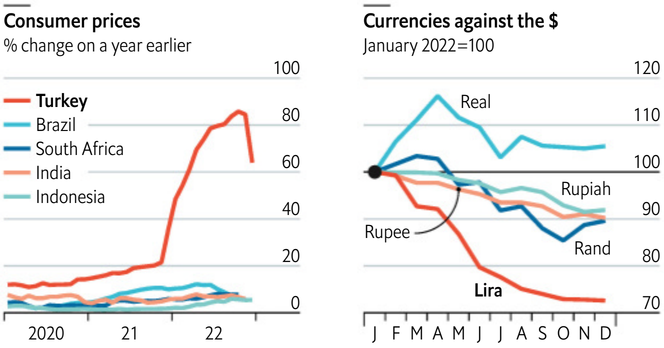
The government claims its policy makes Turkish goods more competitive by cutting labour costs, and adds that boosting domestic output will reduce inflation. Since inflation results from too much money chasing too few goods, the argument goes, prices will come down as home production takes off. Exports have indeed risen, by 13% in 2022 to a new record level. But because the economy depends heavily on raw materials from abroad, so have imports, by 34% in 2022. The current-account deficit has ballooned to $40bn (almost 5% of GDP).

Financing such a large deficit is becoming harder. Put off by the government's crazy monetary policy, as well as worries over corruption and the rule of law, Western investors are shunning Turkey. Foreign direct investment has dried up, as have portfolio inflows. To make up for the shortfall, Turkey has turned to new friends. The central bank has concluded $28bn of currency swaps with China, Qatar, South Korea and the United Arab Emirates. Russia has wired billions to Turkey to finance the construction, by a subsidiary of Rosatom, of a nuclear power plant. And Gazprom, another Russian energy giant, is poised to allow Turkey to delay payments for natural-gas imports.

Some money comes in under the counter. In the first eight months of 2022, "errors and omissions" in the central bank's accounts hit a surplus of $28bn. Much of that is believed to be gold and dollars from Russians who have fled to escape conscription and Western sanctions. Turkey has used foreign reserves to support the lira, a policy economists liken to selling the family silver. The bank is thought to have sold at least $100bn of reserves last year. This has relieved some market pressure, but only a little. The lira depreciated by almost another 30% against the dollar in 2022.

Unable to defy Mr Erdogan, the central bank and the banking watchdog tried to stave off another run on the lira through new regulations. One prevents companies with foreign-currency holdings from taking out new loans. Another forces banks deemed to have insufficient lira deposits to buy treasury bonds yielding 10%, far below inflation. These and other directives have stopped companies and ordinary Turks from dumping the lira in favour of the dollar. But they have also forced banks to start rationing credit. Many exporters and small enterprises are awash in cheap loans. Others are frozen out.

Downs and ups



Sources: Haver Analytics; Refinitiv Datastream

Critics say the new rules are diverting credit to those closest to the government. Opposition parties say they are a recipe for inefficiency and corruption. When loans are priced at 40 percentage points below inflation, even loss-making companies can thrive so long as they have access to credit. For a select few, getting rich has never been easier. In Ankara rumours swirl of palace officials mediating between favoured companies and state banks.

With credit no longer as readily available, Mr Erdogan has turned to spending to pep up the economy before the election. He has some headroom: at 40% of GDP, Turkey's public debt is lower than in most EU countries. The government has offered early retirement to 2.3m workers, pledged 600bn lira for energy subsidies, and promised to build 500,000 new homes in five years. This month it raised the minimum wage by 55% and the pay of civil servants by 30%. Yet inflation will have wiped out most of these new handouts before June, one reason why Mr Erdogan may advance the election.

The earlier boom

All this makes a grim contrast to the early 2000s, when Mr Erdogan helped set off a boom. Reforms pushed through after an economic crisis in 2001 that catapulted AK to power had brought inflation down to single digits for the first time in decades. The economy took off. Annual real growth averaged 6.9% between 2002 and 2007 and 7.4% between 2010 and 2015. About a third of the population in 2002 lived below the World Bank's poverty line for middle-income countries of $5.50 a day (in 2011 dollars). By 2018 that share had dropped to 8.5%. Foreign investment, which was never above $1bn a year before 2001, reached $22bn in 2007. Turkish builders and brands spread through Africa and the Middle East. The labour-force participation rate for women rose to 32.5% in 2021—still the lowest in the OECD club of mostly rich countries, but up from 25.3% in 2005.

Mr Erdogan believes that the remedy for inflation is to make money cheaper

Today, many of those gains are being lost. A decade ago, Mr Erdogan promised to make Turkey one of the world's ten biggest economies by 2023, and to raise incomes per head from $11,300 to $25,000. The economy has since dropped from 17th ▶▶

All in the family

A government over-reliant on kith and kin

ASK OPPOSITION politicians and former Justice and Development (AK) officials who is responsible for Turkey's new economic model, and one name, Berat Albayrak, comes up a lot. Mr Albayrak took over the finance ministry in mid-2018 after a few years as energy minister. By the time of his shock resignation two years later, the central bank's foreign reserves and its credibility were depleted, and the lira had lost nearly half its value. Yet his legacy lives on. Insiders say the finance ministry is still staffed by Mr Albayrak's allies. Nureddin Nebati, now the finance minister, is a close friend. On his watch, the country has resumed Mr Albayrak's policy of cutting rates to stoke growth while selling foreign reserves to support the lira.

Mr Albayrak is Mr Erdogan's son-in-law. His career is emblematic of the Turkish leader's tendency to dump technocrats and former AK heavyweights in favour of yes-men, opportunists and relatives. The coup attempt in 2016 was a turning-point, after which Mr Erdogan began to prize family and loyalty over expertise, says one former palace official. His coalition with MHP nationalists in parliament and with supporters who favour closer co-operation with Russia and China has sealed the fate of other former allies.

Since 2016 Turkey's leader has parted ways with Ali Babacan and Mehmet Simsek, architects of the boom of the 2000s, with Abdullah Gul, his predecessor as president, and with Ahmet Davutoglu, a former foreign and prime minister. Mr Davutoglu and Mr Babacan have set up two separate opposition parties, Gelecek (Future) and Deva (Democracy and Progress). Mr Davutoglu accuses Mr Albayrak of engineering his ousting.

And he is just one of Mr Erdogan's relatives. One of his sons, Bilal Erdogan, commands a following among AK officials and the party's youth wing. Last year, the younger Mr Erdogan popped up at a summit in Tehran, alongside Ebrahim Raisi and Vladimir Putin, the Iranian and Russian presidents, and also accompanied his father on an official visit to Uzbekistan. The biggest star, however, is the president's other son-in-law, Selcuk Bayraktar, the chief technology officer of Baykar, a defence company, and the face of Turkey's successful drone programme. Though popular, even among opposition supporters, Mr Bayraktar has so far steered clear of politics.

Mr Albayrak retains influence through his former ministry, some AK MPs and his older brother, Serhat, who runs Turkuvaz, a media group known for hyperventilating pro-government coverage. But his stock has taken a beating. Many Turks blame him for burning through $165bn in foreign reserves and for the state of the economy. The man once touted as Mr Erdogan's possible successor could yet turn out to be a cause of the Turkish president's undoing.

▸ to 19th, and average incomes have shrivelled to $9,600. Over the past two years, skyrocketing prices and falling real wages have pushed millions of Turks into poverty. Growth is no longer inclusive, as Mr Erdogan's new economy creates more losers than winners, helping to wipe out a sizeable chunk of the middle class.

A reckoning awaits whoever wins the election. The opposition's solution is to restore the central bank's independence and raise interest rates to rein in inflation. The harder question is what will happen if Mr Erdogan remains at the helm for another five years. He could concede to the laws of economic gravity, as in the past, allowing the central bank to raise rates. But there is reason to suspect he might refuse to do so. "As long as this brother of yours [ie, him] is in power, the interest will continue to fall," he declared last October. Months beforehand, his finance minister had boasted of making the central bank's policy rate irrelevant. Victory could encourage them to do away with conventional monetary policy altogether.

Mr Erdogan has never put forth a serious economic theory to support his belief that high interest rates cause inflation, possibly because one does not exist. Some think his motives are religious. "If Turkey continues to go down this path, the banking sector will become based on Islamic finance," says Arda Tunca, an economist. Mr Erdogan has not dispelled such suspicions, often invoking the Islamist injunction against usury as a reason to cut rates. More than anything, though, the new economy is an exercise in statism. Nearly all the president's economic advisers are leftists and nationalists, says another economist. "They love the idea of being in control," he says. "Bang your fist on the table, make the decision, and the market will go with us. This is economic illiteracy."

Most analysts agree that this model cannot be sustained. Something will have to give. Currency swaps and cash from Russia may prop up the lira until the election, but not for much longer. Without a return to orthodoxy, another currency crisis and a fresh surge in inflation await. To stop the bleeding, the government might have to impose capital controls.

Economists still say Turkey's long-term prospects are bright. The search for shorter supply chains means it can compete with China as a supply hub for Europe. An expanded customs union with the EU, held up by concerns over democracy, would help. Turkey boasts better infrastructure, including airports, bridges, hospitals and tunnels built during Mr Erdogan's tenure, than many EU members. Turkish businesses and banks have weathered economic upheavals and barmy policy. The tech sector has great potential. Turkey boasts six unicorns (startups valued above $1bn), up from none three years ago. And demography works in its favour: by 2040 the population may by one estimate hit 100m. With the right policies, as well as strong institutions, the economy could break into the global top ten around the same time.

Yet economic mismanagement stands in the way. One effect is an accelerating brain drain. Turkey's brightest minds, unable to afford a decent lifestyle at home, are eager to try their luck elsewhere. At least 30,000 software developers and 1,400 doctors are said to have emigrated in 2021. A survey last summer found that 82% of Turks between the ages of 17 and 30 would move abroad if they had the means. For young Turks, the long term cannot come soon enough. ■

Syria

The southern spillover

Syria's civil war has transformed Turkey

ALTINDAG, A NORTHERN suburb of Ankara, still bears the scars of summer 2021, when local mobs rampaged through the streets, attacking Syrian businesses and homes after the killing of a Turkish teenager by a refugee. Police vehicles patrol the main intersections. Parts of the area feel deserted. In response to the violence, Turkey's interior ministry decreed that the share of foreigners in some neighbourhoods, starting with Altindag, would be capped at 20% of the population. To drive this home, the authorities moved out 4,000 Syrians and tore down more than 300 buildings, presumably to ensure that refugees could not return.

Tensions have calmed, but the Syrians who remain are uneasy. What they fear most is not renewed violence, but the risk of mass deportations. Yasin, a barber from Aleppo, says he was once arrested for smuggling cigarettes, and this could give the police an excuse to deport him to Syria. He would end up in prison, he says, because he fought against the regime. "Turkey welcomed us when practically every other Arab country refused," he says. Now it is showing Syrians the door.

Turkey is home to around 15m Kurds, a million Arabs, tens of thousands of Armenian descendants of those spared the genocide of 1915, and a small, dwindling population of Greeks and Jews. But the social and demographic changes the country has undergone because of the war in Syria are unprecedented. At the end of 2010, just before the start of the war, Turkey had only 10,000 refugees and asylum-seekers. Twelve years on, it hosts 3.6m Syrians, more than the rest of Europe put together, plus over a million migrants from Africa, Central Asia, the Middle East and Russia. Turkey is a country transformed.

The gleaming, air-conditioned container cities that once dotted the border, where most newcomers sheltered in the first years of the war, are a thing of the past. Fewer than 50,000 refugees are now in the camps. The rest are scattered across cities, mostly in the south and west. Over 98% of Syrian workers are employed informally, reckons Saniye Dedeoglu, a professor at Abdullah Gul University in Kayseri, with no social security or other benefits. Most are paid less than Turks. Child labour, especially in agriculture, is widespread. But the refugees are better off than those elsewhere in the Middle East. Syrians have access to public health care and education, and a path to citizenship. Some 730,000 Syrian children, about 65% of the total, are in school. Around 220,000 refugees have been naturalised.

Western countries generally praise Turkey for doing a remarkable job for its Syrian refugees. Yet Turks do not want to hear it. Most say the country has become a safe house for foreigners whom Europe does not want to see within its own borders. And many want the refugees to go home. Violence of the kind seen in Altindag remains rare. But as the economy sputters and the election approaches, attitudes to the Syrians have hardened.

Opinion polls find that refugees are the third-most important issue for voters, behind only the economy and unemployment. Opposition politicians are stoking and feeding off the resentment. Kemal Kilicdaroglu, the head of the opposition Republican People's Party (CHP), has pledged that, by restoring relations with the regime in Damascus, he will ensure that Syrians in Turkey return ▸▸

Another desert wave

home "with drums and trumpets". The government is not far behind. Mr Erdogan, whom many Syrians in Turkey consider a saviour, has begun placating his base by insisting he too wants most refugees gone. A few years ago, he proposed resettling them in areas of northern Syria formerly controlled by the YPG but now occupied by Turkish troops and their local proxies. Human-rights groups decried this as an attempt at demographic engineering. Turkey's offensives in Syria, plus atrocities committed by its Arab proxies, have already displaced hundreds of thousands of Kurds. Turkey has also deported thousands of Syrians, mostly for alleged crimes, or for failing to register with the authorities. Many say they were forced or tricked into signing voluntary return forms by Turkish police.

Mr Erdogan's Syria policy has become a weakness, exposing him to voter backlash

Public pressure has forced Mr Erdogan into a U-turn. No foreign leader has pursued regime change in Syria more doggedly than him. But last November Mr Erdogan said he was ready to bury the hatchet with Bashar al-Assad, the Syrian dictator. He wants voters to believe that rapprochement with Syria will pave the way for mass returns. Many Syrians in Turkey fear they may pay the price. They are likely to stay whoever wins the election. Deporting them would violate Turkish and international laws. And voluntary returns, at least on a mass scale, are a pipe dream. Studies find that only one in five refugees wants to go back.

Making nice with Syria's regime could even trigger a fresh exodus. The areas of Syria now under Turkish control are home to some 4m people. Were Turkey to hand them back to Damascus, something Mr Assad will insist on as part of any normalisation agreement, many who fear his tyrannical rule might flee north. A Turkish withdrawal from Idlib province in Syria's north-west, an opposition stronghold, would surely be followed by a renewed regime offensive, and another refugee wave.

Transatlantic woes

The war in Syria has upended Turkey's relations with America, as well. Almost as soon as the fighting began, Mr Erdogan's government threw its weight behind efforts to topple Mr Assad, offering rebels both weapons and a haven in Turkey. America initially backed this. But its appetite cooled, especially as foreign and Turkish jihadists poured into Syria through Turkey's southern border, swelling the ranks of Islamic State (IS), a jihadist group.

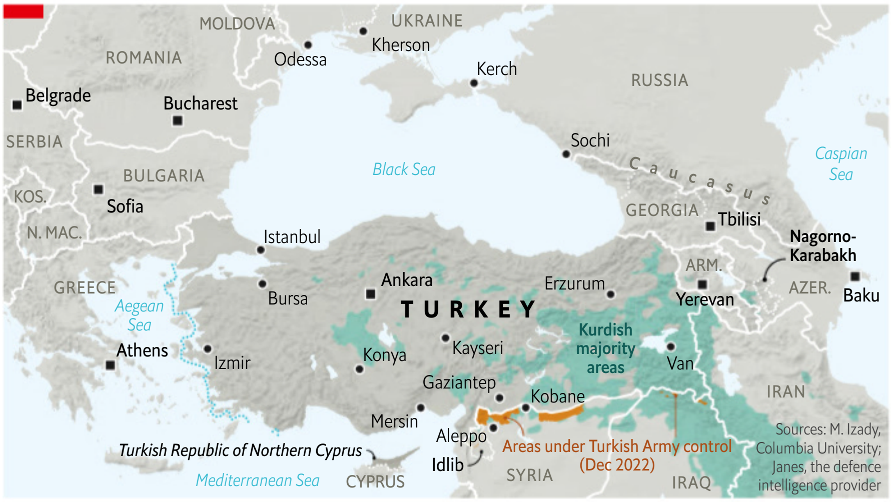
One turning-point was in 2013, when Barack Obama, despite previous talk of red lines, shied away from an armed response after Syrian troops had killed 1,500 people with chemical weapons. Another came a year later, when Mr Erdogan twiddled his thumbs as IS besieged Kobane, a Kurdish city in Syria within sight of the border. Only American air strikes and air drops saved the Kurds from a massacre. Turkey continued to call for Mr Assad to go, but America focused more on the war against IS, which it partly outsourced to the YPG. Turkey accused the Americans of doing nothing to stop Mr Assad. America accused Turkey of doing nothing to stop IS.

With America's help, the Kurds brought the IS caliphate crashing down. But their war, as well as violence unleashed by jihadists in Syria, spilled into Turkey. In 2015 IS fighters took their campaign of terror across the border. Over the next 19 months, their bombs across Turkey killed hundreds of people. Most of the victims were Kurds, or supporters of the Kurdish cause. Many perpetrators turned out to be homegrown Islamist radicals who had travelled to Syria to join IS and returned home. If their goal was to sow chaos in Turkey, they succeeded. Kurdish politicians claimed that Mr Erdogan was supporting IS against the Kurds in Syria. Some even accused his government of having a hand in the bombings at home. Days after one attack, two Turkish policemen were assassinated in a town near the Syrian border. A PKK offshoot claimed responsibility for what it called a revenge killing.

Mr Erdogan responded to the assassination with more air strikes against PKK positions in northern Iraq. After years of calm, war returned to Turkey's Kurdish south-east. PKK fighters, emboldened by their gains in Syria, holed up in cities across the region, booby-trapping homes and lobbing rockets at army vehicles. The government responded with a ruthless crackdown, sending tanks into urban centres. When the dust settled, some 2,000 people were dead, several districts lay in ruins, and Turkish politics had lurched further to the right. Mr Erdogan, who once bravely endorsed cultural rights for the Kurds and even opened negotiations with the PKK, courting Kurdish voters, had changed course, reinventing himself as a Turkish nationalist.

Today, Mr Erdogan's Syria policy has become a weakness, exposing him to voter backlash and to pressure from Russia, argues Gonul Tol, of the Middle East Institute, in a new book, "Erdogan's War". But the war has also allowed him to consolidate his power. Mr Erdogan has presided over the arrests of thousands of activists and politicians from the Kurdish HDP party, including the jailing of its former leader, Selahattin Demirtas. His war against the PKK in Syria and northern Iraq has helped him silence dissent and bulldoze his way to one-man rule.

Mr Erdogan's hawkish turn and his decision to go after the HDP won him new friends in the MHP. The coup attempt in 2016 sealed their alliance. Having purged supporters of the Islamist Gulen movement, whom he blamed for the coup, and other opponents from the army and the police, Mr Erdogan then handed the MHP nationalist party the keys to parts of the security apparatus. The MHP returned him the keys to an executive presidency. A year later the party, headed by Devlet Bahceli, a former leader of the Grey Wolves, a right-wing group with a history of political violence, backed a referendum giving Turkey's leader sweeping new powers. Mr Erdogan prevailed, albeit by a slim margin. The war in Syria had, in effect, redrawn Turkey's political map. ■



Sources: M. Izady, Columbia University; Janes, the defence intelligence provider

Political Islam

It's all over now

How Turkey's promotion of political Islam abroad died

MANGO JUICE is delicious. So AK officials had no reason to complain when Mr Erdogan began serving it in his palace last year. But they may have been baffled to hear that it was a present from Egypt's president, Abdel Fattah el-Sisi. For Mr Erdogan and Mr Sisi had not been on speaking terms for a decade. As an avowed Islamist, Mr Erdogan had thrown his full weight behind the Muslim Brotherhood, which took power in Egypt in 2011 after protests toppled Hosni Mubarak. When Mr Sisi seized power two years later, in a coup that killed hundreds of protesters, Turkey's leader called him a tyrant, held rallies in support of Muhammad Morsi, the deposed Egyptian president, and gave other Brotherhood leaders a haven.

Political Islam has made fewer inroads in Turkey than Mr Erdogan might have wished. But the Arab spring that shook the Middle East in 2011 saw the country emerge as one of its main exporters. Besides Egypt, Turkey backed Brotherhood parties and other Islamist groups in Libya, Syria and Tunisia. Mr Erdogan and Ahmet Davutoglu, then his foreign minister, wanted to expedite the collapse of the old regional order and cement Turkey's influence over the new one. But that policy ran out of steam in Egypt when Mr Sisi took over, and in Syria two years later when Russia intervened to prop up the Assad regime. Now it has gone into reverse. In November Mr Erdogan met Mr Sisi for the first time, on the sidelines of the World Cup in Qatar. Months of talks between Turkish and Egyptian spooks and diplomats paved the way for the meeting.

Mr Erdogan also mended fences with other regional powers. He has proclaimed a "new era" in relations with Saudi Arabia, whose crown prince, Muhammad bin Salman, visited Turkey last summer. The crown prince is believed to have ordered the murder in 2018 of Jamal Khashoggi, a dissident journalist, in the Saudi consulate in Istanbul. Mr Erdogan has inked new trade deals with the UAE, which with Egypt waged a proxy war against Turkey in Libya, and which officials accuse of supporting the abortive Turkish coup in 2016. To the chagrin of his Islamist supporters, Mr Erdogan has also patched up relations with Israel, which broke down after Israeli commandos killed ten people aboard a Turkish ship in 2010. He has even reached out to Bashar al-Assad in Syria.

Turkey's motives are varied. Mr Erdogan needs Gulf money to support the lira, at least until the election. The UAE has pledged to invest $10bn in Turkey and agreed to a $5bn currency swap, boosting depleted dollar reserves. Saudi Arabia is in talks to park another $5bn in Turkey's central bank. Turkey also hopes to weaken Israel's and Egypt's support for Greece in the east Mediterranean, and to position itself as a transit route for natural-gas exports.

But the reset has come at a cost to Turkey's Islamist credentials. To clear the way for reconciliation with Saudi Arabia, Turkey has dropped any investigation into the Khashoggi murder, ensuring impunity for the killers. It has ordered news outlets launched by Brotherhood exiles not to criticise the Sisi regime. At least one opposition channel has closed as a result. Damascus will also demand a price for normalisation. A deal with Mr Assad would force Turkey to sever its links with the armed opposition, says Dareen Khalifa, an analyst with the Crisis Group think-tank. Political Islam looks to be a spent force in Turkish foreign policy, at least as far as the Arab world is concerned. ■

Foreign policy

The eastern question

Turkey has turned into an awkward ally for the West

"TURKEY WILL strive for peace and durable stability in the region alongside the US, her strategic partner and ally for more than half a century," a Turkish leader once wrote in an American newspaper. "We are determined to maintain our close co-operation with the US." Those words seem from another era. They are, though not such a distant one. The year was 2003, Turkey's parliament had rejected an American request to use the country as a launchpad for its invasion of Iraq, and the writer, keen to reassure his NATO ally, was the new prime minister, Recep Tayyip Erdogan.

Turkey's president strikes a different tone when he speaks of America and the West today. Mr Erdogan accuses America of supporting terrorism by arming the PKK, which Turkey considers its mortal enemy. Some of his associates suspect America of having a hand in the coup attempt of 2016. Similar recriminations are levelled at the EU, which Mr Erdogan says was never sincere about Turkey's membership aspirations, has become a haven for terrorists and is envious of Turkey's progress.

Policy wonks and diplomats accuse Turkey of abandoning the West. Turkish officials claim they are the ones being abandoned. Turkey no longer sees itself as on Europe's periphery, or as part of a single zone of influence, but as a country with its own centre of gravity. Membership of NATO gives it the best insurance policy around. NATO cannot afford to lose Turkey either. But there is a sense in Ankara that the "new Turkey" is strong enough to ignore or test such old alliances, sometimes to breaking-point, to forge new ones and to act autonomously. "Turkey is trying to conduct a 360° foreign policy," says Ibrahim Kalin, a presidential adviser. "And we don't want to favour any particular issue or actor or region or country over others."

Mr Erdogan is even more uncompromising over national security. "We do not need to ask permission from anyone," he said in November, warning of a new offensive in Syria, "and we will not be held accountable to anyone." Foreign policy in Turkey, once the purview of generals and professional diplomats, has become a domestic issue and part of identity politics. Bashing the West goes down well with religious voters, nationalists and even many leftists. So does the idea that Turkey is destined to be a world power. Look at the inroads Turkey has made in Africa and Central Asia over the past decade, the popularity of its soap operas, the success of Turkish Airlines and the number of countries queuing up to buy Turkish drones, and you might think it is one already.

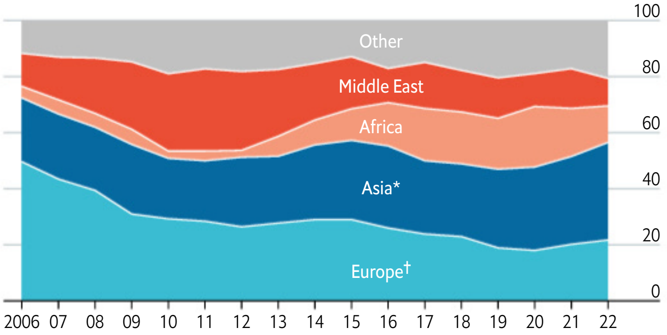
Many in Mr Erdogan's inner circle celebrate the idea that the West is in decline and a new international order is taking shape. This conviction has become one of the pillars of Turkey's new foreign policy, says Galip Dalay of Chatham House, a think-tank. A case in point is Turkey's ongoing romance with Russia. Modern Turkey's pursuit of good relations with Russia is nothing new. Ataturk reached out to the Bolsheviks for help in his war against Greece. They gave him weapons, money and military advisers. Even during the cold war, governments in Ankara co-operated with the Soviet Union; Russian engineers built some of Turkey's biggest industrial plants. But the relationship under AK is stronger than at any point since the foundation of the republic.

Turkey depends on Russia for billions of dollars in tourism revenue, and more than 40% of its gas imports. The two regional powers have locked horns in the Caucasus and Libya. But for Turkey, it is in Syria that relations with Russia matter most. The buffer zones Turkey has created in Syria's north would not have been possible without Russian approval. Although weakened by its war in Ukraine, Russia can still cause havoc for Turkey in Syria. A regime offensive against Idlib, backed by Moscow, could send hundreds of thousands of new refugees to Turkey's borders.

Hopes that war in Ukraine would prompt Turkey to distance itself from Russia have proved misplaced. The relationship has survived bigger tests. One was the assassination of the Russian ambassador to Turkey in 2016, which both countries called a provocation. Another came in early 2020, when a Russian airstrike in Idlib killed 34 Turkish soldiers. Turkey struck back, but only against Syrian forces, and never blamed Russia. "Syria is much more central to Turkish security," says Dimitar Bechev, a visiting scholar at Carnegie Europe. "Once Russia inserted itself there, the stakes for Turkey were much higher than anything happening in Ukraine."

Going off Europe

Foreign trips by Recep Tayyip Erdogan, by region, % of total



Sources: Emre Akcakmak; government sources *Including Russia †Excluding the Balkans

Officials in Ankara say good relations with Russia allow Turkey to act as a mediator in Ukraine. Mr Erdogan has done a good job getting Russia to ease its naval blockade of Ukraine, allowing the resumption of grain exports by sea and negotiating prisoner swaps. But mediation has offered Turkey a cover for business dealings and for refusing to align with Western sanctions. In Ukraine Mr Erdogan takes credit for giving a besieged country the drones that helped save Kyiv and for closing access to the Black Sea for Russian warships. In Brussels and Washington he expects praise for his efforts. Yet in Moscow he reaps the rewards of acting as Vladimir Putin's friend, and at home he takes credit for Turkey's thriving business with Russia. Exports to Russia hit $7.6bn last year, up by 45% on 2021.

Western leaders have come to terms with Turkey's refusal to take sides in Ukraine

Western leaders have come to terms with Turkey's refusal to take sides over Ukraine. A wider concern is that its view of Russia does not appear to have changed during the war. For many in Europe, the invasion was a wake-up call. Not in Turkey. "We do not see Russia as a threat," Mr Kalin says. "The fact that we are a NATO member, that we are part of the Western alliance doesn't prevent us from having a good relationship." Perhaps with the exception of Viktor Orban of Hungary, nobody else in NATO agrees.

A fickle ally

Turkey is important to NATO. Turkish soldiers have joined missions in Afghanistan, the Baltics, Bosnia, Kosovo and Macedonia. In 1950, two years before it joined the alliance, Turkey sent 15,000 troops to fight alongside American soldiers in Korea. But the country is often now a spoiler. It is threatening to block NATO accession for Finland and Sweden. Mr Erdogan wants to strong-arm both countries into deporting PKK suspects and Gulenists. Turkey may also hope its veto threat can extract concessions from America's Congress, whose members have threatened to block the sale of new F-16 fighter jets. America has banned Turkey from buying F-35 stealth bombers, after Mr Erdogan went ahead with the purchase of an S-400 air-defence system from Russia.

Turkey also threatens to attack a fellow NATO member. A dispute over maritime rights with Greece, more suited to lawyers and bureaucrats, has drawn in politicians and generals. "We may suddenly come one night," Mr Erdogan warned last October, suggesting a Turkish operation against one of the Greek islands that hug Turkey's southern and western coast. He has even hinted that Turkey is capable of striking Athens with ballistic missiles.

From the war in Ukraine to those in Syria and in Nagorno-Karabakh, to relations with China, to sanctions against Iran, to press freedoms, human rights and terrorism, the list of issues where Turkey and its Western allies no longer see eye to eye is long. The institutional links, including membership in NATO and the Council of Europe, and the customs union with the EU, are intact. But in policies, a decoupling is under way. In 2008 Turkey aligned itself with 88% of the EU's foreign-policy decisions and declarations. By 2016 that share had fallen by half to 44%. Last year it was only 7%.

Neither America nor the EU has come up with a persuasive strategy for their engagement with Turkey. Under Joe Biden, America has taken an ad hoc approach, stepping in only when Turkey and Greece risk coming to blows, or when Mr Erdogan prepares a new offensive in Syria. Mr Biden has been frosty towards Turkey's leader, seemingly waiting until the summer election to work out how best to deal with him or his successor. "The view of the White House," says Soner Cagaptay, of the Washington Institute for Near East Policy, "is that when you engage with Erdogan you end up with drama."

The EU's relations with Turkey have been in limbo for several years. Turkey's accession talks with the EU were dying on the vine almost as soon as they started in 2005. German and French leaders, who were once merely lukewarm to the idea of Turkish membership, now seem to be openly hostile to it. The EU's decision to admit a divided Cyprus in 2004 and the breakdown of peace talks between the internationally recognised Greek-Cypriot government in the south and the Turkish-occupied north have made matters worse. Mr Erdogan, who once backed the island's unification, now favours partition. Many Cypriots fear Turkey may end up annexing the north.

Talks on reform of the customs union with the EU have stalled. An upgrade to extend it to agriculture, procurement and services could boost Turkey's GDP by as much as 1.8%. But Turkey's descent into autocracy and the deadlock over Cyprus make EU politicians reluctant to agree. The relationship centres instead on a deal under which the EU has paid Turkey $6bn to keep refugees and migrants on its side of the Aegean Sea. The EU and Turkey are keeping the membership talks on life support at best. The relationship needs an alternative track. "We have no strategic vision towards Turkey," despairs a European diplomat.

The marriage between Turkey and the West is increasingly unhappy. But it will surely endure. The champions of the "new Turkey's" eastern pivot might have a destination in mind, but also no means to get there. Turkey's business and trade links with China and Russia pale in comparison with those with Europe. The EU is Turkey's main trade partner and source of foreign investment, just as America is Turkey's biggest supplier of weapons. The Shanghai Co-operation Organisation, the loose group of Asian countries headed by China, India and Russia which Mr Erdogan plans to join, might be a nice venue in which to rub shoulders with Mr Putin and discuss Western decline. But it is a poor alternative to improved relations with the West. ■

Politics

Opposition days

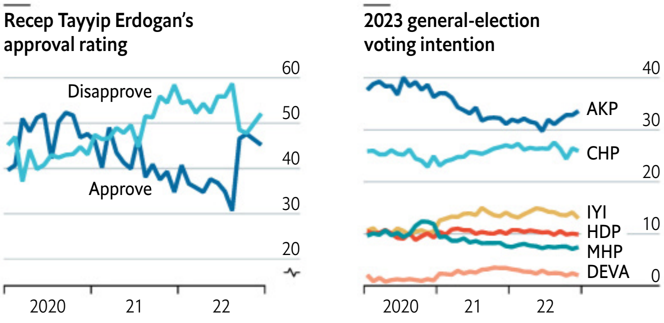
The opposition remains rudderless

AT LEAST ON paper, Turkey's opposition has it all worked out. In policy documents the opposition bloc, headed by the CHP and IYI, a centre-right party founded by defectors from the MHP nationalists, has plans for a post-Erdogan future. Constitutional changes will dismantle Mr Erdogan's executive presidency, hand back to parliament the powers enjoyed by the palace, restore the post of prime minister, free the courts from political influence and lower from 7% to 3% the election threshold that keeps small parties out of parliament. With the central bank in charge of monetary policy again, zombie companies and government cronies cut off from free credit and inflation under control, foreign investment will gush in. "Turkey is going to be a target for a once-in-a-decade trade," says Bilge Yilmaz, head of IYI's economic team.

Most Turks, even AK voters who may be disappointed with the presidential system and the economy, could get behind such a programme. But the opposition is running out of momentum ahead of the summer election and is now seeing its lead over the AK-MHP alliance narrow. The parties face three major hurdles.

A recovery of sorts

Turkey, %



Source: National polls

One is the media. Many of Turkey's news channels, especially its public broadcasters, have turned into government PR agencies. The Kurdish HDP has been subjected to an informal media ban since 2017. Through censorship, fear of criminal prosecution and the blacklisting of certain pundits and journalists, the media have no power to hold Mr Erdogan to account.

The second is Turkey's leader. Mr Erdogan has a history of using the central bank and the treasury to prime the economy ahead of elections, and the courts to harass opponents. He will not hesitate to do all of this again.

The third obstacle is the opposition itself. With only months to go before the election, the Nation Alliance, as the opposition calls itself, has still not come up with a united candidate for the presidency. Mr Kilicdaroglu, the CHP chairman, seems determined to run, but is facing pushback from Meral Aksener, the leader of IYI. Cracks within the opposition are starting to show.

Mr Kilicdaroglu is a capable manager, and can take much credit for opposition success in the 2019 local elections, which saw AK mayoral candidates defeated in Turkey's three largest cities. But he may also be unelectable. As a public speaker, he does not hold a candle to Mr Erdogan. The Turkish leader's mass rallies have the atmosphere of a rock concert. Mr Kilicdaroglu's can feel like a fireside lecture. Another concern is that the CHP leader hails from the Alevi religious minority, which faces prejudice from Sunni conservatives and the far right.

Polls suggest two other CHP leaders, Mr Imamoglu, the Istanbul mayor, and Mansur Yavas, mayor of Ankara, would fare better. But to run for president each would have to resign and hand over the mayor's office to AK, which controls the Ankara and Istanbul city councils. Each also has a weak spot. Mr Imamoglu's star had already faded after his shock victory in 2019, and he has now been handed a ban from politics (though he will appeal). Mr Yavas, a hardline nationalist, may be too unpalatable to Kurdish voters.

A way with Kurds

There is a broader problem for the opposition alliance. Although it needs the votes of Turkey's Kurds to have a shot at unseating Mr Erdogan, the opposition has given the HDP, the third-biggest group in parliament, the cold shoulder. The CHP continues to court the party's support. But IYI nationalists, who see the HDP as merely the PKK's political wing, refuse to sit at the same table.

The HDP and its 6m voters, who have seen dozens of Kurdish mayors and parliamentarians thrown in prison since 2016, have no love for Mr Erdogan. But they are disappointed with the Nation Alliance, which shies away from speaking about Kurdish rights. ▸▸

"When it comes to solving the Kurdish problem, they behave timidly, spinelessly," says Pervin Buldan, the HDP's co-chair. "If they think differently from AK, they have to make it clear, otherwise they will be no different from the government." The HDP has now said it will nominate its own presidential candidate.

Working out what the opposition stands for is also hard in foreign policy. CHP and IYI politicians claim to want to patch up relations with America and Europe, to turn Turkey back into a dependable NATO ally, to issue fewer threats and to reduce dependency on Russia. But they acknowledge that Turkey is too big and too independent, and exists in too tough a neighbourhood, to stay in lockstep with its Western partners. Disputes over issues like America's support for the YPG, Europe's attitude to the PKK, or sanctions on Russia and Iran, are bound to continue.

On too many issues,the opposition has given Mr Erdogan a blank cheque. The CHP backed the government's gunboat diplomacy in the east Mediterranean, its offensives against Kurdish fighters in Syria, its intervention in Libya, its rapprochement with Russia and even its calamitous purchase of Russian S-400 missiles. As soon as Mr Erdogan invokes national security, the opposition falls into line. "Whenever there is criticism against one policy or another, the government accuses the opposition of taking sides with the terrorists," says one CHP lawmaker. "You cannot express your views and opinions without being pushed into a corner."

Given Mr Erdogan's insistence that any dissent on matters of national security equals treason, a reluctance to criticise him is perhaps understandable. But it does not inspire confidence. "What the hell are they going to do that is very different?" asks Soli Ozel, an academic at Kadir Has University in Istanbul. "Either they don't have the courage of their convictions, or they don't have convictions." Rather than find a strategy to win, the opposition seems merely to be waiting for Mr Erdogan and the AK party to lose. That may not be enough. ■

The future

Democracy, if you can keep it

The election will test Turkey's democratic credentials

IN SPRING 2019 Ekrem Imamoglu won the Istanbul mayoral election, defeating one of AK's main leaders, Binali Yildirim, a former prime minister. He did so not just once, but twice. On election night, just as Mr Imamoglu was poised to overtake his rival, the state news agency suddenly stopped updating the vote tally. Overnight large banners proclaiming Mr Yildirim's victory went up across Istanbul. But by the time the vote count had ended, Mr Imamoglu was ahead by over 13,000 votes.

His victory proved short-lived, however. AK appealed, claiming irregularities, leading Turkey's election board to cancel the vote and order a rerun. Two months later, Mr Imamoglu won again, this time by a resounding 800,000 votes.

Optimists see this episode as evidence of the resilience of Turkey's democracy. Pessimists say that a government capable of such shenanigans in a local contest could go to even greater extremes to win an election in which Mr Erdogan's career and the future of his new Turkey may be on the line.

So far, the pessimists seem to be winning the argument. On December 14th, in what many critics saw as a verdict handed directly from Mr Erdogan's palace, a court in Istanbul sentenced Mr Imamoglu to over two years in prison and banned him from politics, pending an appeal. His crime was to have referred to the election officials who had briefly stripped him of victory in Istanbul as "idiots". Earlier this month the constitutional court similarly froze the bank accounts of the Kurdish HDP party; the party may yet be banned altogether.

Perhaps a glut of new spending to support living standards, his enduring popularity with conservatives and nationalists, and a successful electoral campaign, along with the usual censorship, would have been enough to ensure victory for Mr Erdogan, at least in the presidential election. But Turkey's strongman seems determined not to take any chances. Governments come and go; regimes hold on for dear life. The system that Mr Erdogan controls already resembles the second.

A presidential dilemma

A big problem with charismatic strongmen, especially those like Mr Erdogan who inspire genuine allegiance, is that the regimes they build lose their purpose once their leaders leave office. Turkey's leader has no anointed successor, and no one within AK or the MHP comes close to being able to walk in his shoes. The person mandated to replace him as president, in case of his death or indisposition, is practically unknown to the rest of the world, and even to many Turks. He is Fuat Oktay, the vice-president.

Mr Erdogan has persuaded himself that he is indispensable. Many of his supporters reckon the economic, religious and security gains they have seen over the past two decades depend on his staying in power. The people who stand to lose most from the end of the Erdogan era would not be ordinary voters, but thousands of senior officials, propagandists and businessmen whose careers and personal fortunes depend on the patronage networks over which Turkey's leader presides. It is they who may do most to encourage Mr Erdogan, assuming he needs encouragement, to do whatever it takes to win.

Yet Turkey is not a dictatorship. Elections are more like a football match in which one team has eleven players, the other eight, and the referee generally sides with the bigger team, says Berk Esen, an academic at Sabanci University. But the smaller team, assuming it has the better players and the right strategy, can still play to win, he suggests.

Despite the camaraderie between Mr Erdogan and Mr Putin, and the Turk's tendency to borrow from the Russian's playbook, Turkey is not Russia. Mr Erdogan knows that his power depends not only on his ability to lock up his critics and to control public bodies, but also on the idea that he can be unseated through the ballot box. He may have dismantled many of the country's democratic institutions, but he has also upheld the belief that elections can make a difference. The majority of Turks could not agree more: witness the impressive turnouts of over 80% in recent local and general elections.

Elections in Turkey have often been flawed, but so far never stolen outright. They are voters' last remaining valve for dissent against their president. Closing it could trigger economic chaos and social unrest. The next few months will be crucial for what remains of Turkey's democracy. ■

ACKNOWLEDGMENTS A list of acknowledgments and sources is included in the online version of this special report

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China and Latin America

Boom or bust?

BUENOS AIRES

China's post-covid rebound will create winners and losers in Latin America

For centuries Latin America's economies have been characterised by short booms and sudden busts, often on the back of commodity cycles. When silver was discovered in the highlands of Bolivia in 1545, the village of Potosí briefly became one of the most densely inhabited places on Earth as it provided more than two-thirds of the world's supply. A century later, with the mines depleted, it was a ghost town.

As China reopens after almost three years of lockdowns, some countries in Latin America are preparing for another boom. Morgan Stanley, a bank, thinks China's economy could grow by 5.7% in 2023. That would trigger rising demand for the region's goods. China consumes more than 16% of the world's oil, over half of its copper and more than three-fifths of its iron ore. When rumours circulated last year that covid-19 restrictions would be lifted, the price of copper jumped by 7% in a day.

All this is good news for commodities exporters such as Chile and Brazil. Fully 67% of Chile's copper exports go to China; Brazil sends 70% of its soyabean exports to China. But, like the silver and gold rushes of the past, the good times may not last. Although strong growth this year is likely, the longer-term relationship between China and the region could disappoint.

In the decade after 2002 Latin America's dollar GDP grew by more than 3% a year, thanks to a commodities boom triggered by Chinese industrialisation. China's state-directed "policy banks", including China Development Bank and Export-Import Bank, provided more than $138bn in loans to Latin America between 2005 and 2020. Poverty fell and government coffers swelled as China bought the region's grains, metals and hydrocarbons.

Trade with China grew from $12bn in 2000, or 0.6% of Latin America's GDP, to $445bn in 2021 (8.5% of the region's GDP). By 2021 China accounted for 18% of Latin American trade, up from 5% in 2005. Excluding Mexico, the share rises to 24%. Whereas China became South America's top trading partner, the United States remains that of Mexico and Central America. Brazil, Chile, and Peru all run trade surpluses with China.

Booming trade has led to complacency among some Latin American politicians. Many expect the relationship to always stay the same, says Margaret Myers of the Inter-American Dialogue, a think-tank in Washington, DC. But this overlooks structural issues in China, such as a domestic property slump and the fallout from a trade war with the United States. There are already signs that China's engagement with some parts of the region is weakening.

Since 2020 China's policy banks have approved no new loans to the region (see chart on next page). Although commercial banks and private-equity funds have filled part of the gap, they are not as generous. Venezuela, which used to get two-thirds of Chinese finance in the region, today only receives credit to help it maintain oil shipments to China.

Chinese lending changed after several bad experiences. China struggled to recover millions of dollars in oil-for-loans deals with Venezuela after Nicolás Maduro, the autocratic president, came to power in 2013 and oil prices fell. Elsewhere, pushback from environmental groups also stalled investments, as did shifting policies under different administrations. ▸▸

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45 Lula's plans to curb hunger

According to AidData, a research institute at the College of William and Mary in Virginia, between 2000 and 2017 more high-value transactions linked to China's Belt and Road Initiative were suspended or cancelled in Latin America than almost anywhere else. Similarly, work by CEPAL, a UN-linked research organisation, shows that Chinese investment peaked between 2010 and 2014 and has fallen since then.

Even if engagement with the region increases again as China reopens, it will not follow the same pattern. As China's economy shifts towards services and manufacture of high-tech goods, electric vehicles and renewable-energy products, its imports and investments abroad will change. China's imports of crude oil will fall, while those of critical metals will increase. From 2005 to 2009, 95% of total foreign direct investment (FDI) by China in the region went into raw materials. By 2015 to 2021, this share had fallen to 46%, with the balance split between manufacturing and services.

Between 2017 and 2021 Latin American exports to China of aluminium, used in solar panels, were 28 times as large as in the previous four years. China's annual imports of balsa wood from Ecuador, used in wind turbines, rose by 57% over the same period. Lithium may be particularly prized. The price of lithium carbonate, used in batteries for electric vehicles, soared in 2021 and 2022 from a five-year average of $14,000 per tonne to $72,000.

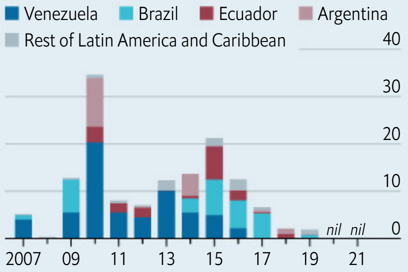
Other commodities may have a trickier future. The price of copper is expected by Goldman Sachs, a bank, to rise from $9,000 per tonne today to $11,000 in the next 12 months. But Andrés Bórquez at the University of Chile thinks that less of it may be needed—and that if China replenishes its copper reserves, which are at their lowest for 15 years, demand will eventually plateau. That could hurt certain overexposed countries, such as Chile: 38% of its exports go to China, over three-quarters of which are copper.

Chinese investments are also becoming more strategic. Electricity is a key area. Between 2017 and 2021 investments in this sector made up 71% of Chinese mergers and acquisitions in the region, according to Boston University's Global Development Policy Centre. In 2021 two Chinese state-owned firms splurged $6bn collectively to buy Chilean and Peruvian electricity companies. Both projects were among the largest foreign investments ever received by either country.

Chinese investment in other infrastructure appears to be accelerating. A survey by Mexico's National Autonomous University reckons that of 192 regional infrastructure projects with Chinese involvement undertaken between 2005 and 2021, 57 were carried out in 2020 and 2021. The reasons may have to do with strategic projects linked to strengthening China's food security. A state-owned firm is building a port 50km (30 miles) north of Lima in order to increase China's supply of food. (So far the protests in Peru do not appear to have affected it—see next story.)

Cooling off

Chinese policy-bank* lending to governments and state-owned enterprises, $bn



*China Development Bank and China Export-Import Bank
Source: Inter-American Dialogue

All this has ruffled feathers in Washington. In 2020 Donald Trump's administration put pressure on Brazil not to allow Huawei, a Chinese telecoms giant, to participate in a 5G auction. The Brazilian government went ahead anyway, but is creating a separate network for government agencies that excludes Huawei. Similarly, the Trump administration extended a loan to Ecuador to help it pay off billions of dollars' worth of debt to China on the condition that it exclude Chinese telecoms firms from its 5G network. In 2021 the G7 launched "Build Back Better World", to compete with Chinese infrastructure investment around the world. It was such a flop that it had to be rebranded last year.

South America has less to gain than Central America from cosying up to the United States. Brazil's relationship with China "just really makes sense", says Larissa Wachholz, at Brazil's Centre for International Relations. "It's beneficial for both sides." She thinks the investment that is lacking in Latin America—in roads, ports and utilities—is exactly what China can offer. Now that the leftist Luiz Inácio Lula da Silva is in power in Brazil, its government is likely to make more overtures to China.

A few countries are trying to lessen their reliance on the Asian superpower. Although Ecuador's centre-right president is finalising a free-trade agreement with China, his administration also wants to join the Pacific Alliance, a trade bloc composed of Chile, Colombia, Mexico and Peru. Uruguay, which exports more than 60% of its beef to China, is seeking a free-trade deal with China as well as trying to join other free-trade agreements. Yet across the region, few countries are thinking about how to adapt if China's comeback turns out to lack the potency of the past. The coming boom may not last long. ■

Peru

Ever more polarised

LIMA

The political chaos looks set to persist

PERU HAS had six presidents in the past five years. Next year it may have a seventh. The latest resident of the presidential palace, Dina Boluarte, took office last month after Pedro Castillo, her predecessor, bungled a coup attempt. She did so in accordance with the constitution, backed by the institutions of state. She was, after all, Mr Castillo's vice-president, elected to take his place in such circumstances. But in the eyes of many Peruvians her presidency is illegitimate.

Since Ms Boluarte took office, the country has been shaken by protesters demanding her resignation, fresh elections and a new constitution. Indigenous and rural people, among whom Mr Castillo campaigned with promises to upend the status quo, are particularly angry. His 16 months in power were marked by corruption scandals, ineptitude and chaos. But many of those who voted for him blame the elites in Lima, the capital. They were furious when he was ousted so swiftly.

The demonstrations were at first peaceful but quickly turned nasty, then deadly. By January 16th, 50 people had died in the unrest, most of them civilians in clashes with the police and army. Several of the victims were not even taking part in protests, such as Yhamileth Aroquipa, a 17-year-old girl killed by a stray bullet.

Ms Boluarte has described the protesters as a "group of radicals making the

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Summer of discontent?

country bleed". On January 14th she extended a state of emergency in much of the country. Extremists have no doubt been involved in the riots. Mr Castillo and his leftist allies have fanned the flames by insisting he is the victim of a coup. But Gonzalo Banda, an analyst, says that Ms Boluarte is underestimating the muscle of indigenous and rural groups, especially in the south.

She has formed an alliance with centrist and right-wing parties that control Congress and has vowed not to resign. If she did, it would leave the speaker of the chamber, a retired military man, in charge of the country. Instead she has called for new elections to be held in April 2024, two years ahead of schedule. This requires congressional approval. So far the idea has failed to appease the protesters.

One proposal, long advocated by the left, is for a new constitution. This is now supported by 40% of Peruvians, double the number in 2021, according to a recent survey. But the poll also suggests that the search for a new political system might merely open more arguments. Fully 72% of those polled want to bring back the death penalty, and half of those polled want the state to control strategic industries.

Peru is "on a dangerous path" to levels of ungovernability, says Mr Banda. "There's a very sharp cleavage between a Peru that defends the current system and a Peru that wants to change it." ■

Brazil

Fewer bellies full

RIO DE JANEIRO

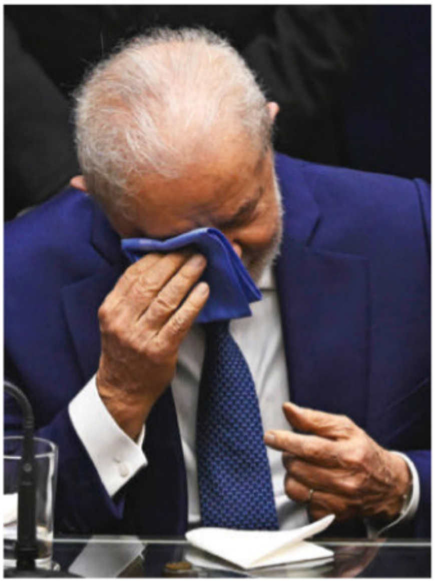
Luiz Inácio Lula da Silva wants to reduce the number of hungry Brazilians

Days after winning Brazil's presidential election in October last year, Luiz Inácio Lula da Silva stood on a stage with tears streaming down his face. Lula, as he is known, sobbed as he talked about the large and growing number of Brazilians struggling with hunger. "If at the end of my term in 2026, every Brazilian is having breakfast, lunch and dinner once again," he said, "I will have fulfilled my life's mission." At his inauguration in January, he broke down once again and reiterated that his government's "first action" will be to rescue millions from malnutrition.

As Marcelo Neri, an economist, puts it, if China is the world's factory, Brazil is the world's farm. The country is the world's largest exporter of beef and the second-largest exporter of grain. Yet despite the bounty, millions of Brazilians are not getting enough to eat. Partly because of the war in Ukraine, food prices have increased so quickly recently that families who considered themselves solidly middle-class a few years ago are now struggling to put food on the table.

The share of the population that is hungry has jumped from 9%, or about 19m people, at the end of 2020 to over 15%, or 33m people, in 2022, according to the Brazilian Research Network on Food and Nutrition Sovereignty and Security (PENSSAN), a non-profit organisation. The number that face some form of food insecurity—for example, skipping meals or opting for lower-quality food—is around 125m.

The last time Lula was president, from 2003 to 2010, he got some way towards his goal. One campaign, "Zero Hunger", which was launched in his first 30 days in office, became a model for other developing countries. Bolsa Família, the world's biggest conditional cash-transfer scheme, ensured families did not starve. By 2010 47m students got healthy free school meals.



A crying shame

The effects were obvious almost immediately. The share of the population that was undernourished fell by half, from around 8% in 2003 to just 4% in 2010, according to the World Bank. A generation grew up with better prospects as fewer children were distracted by rumbling stomachs at school. In 2014 Brazil dropped off the UN Hunger Map, which includes countries where at least 5% of the population face serious food insecurity. But those gains were short-lived. A commodities boom, which boosted growth and funded Lula's social programmes, came to a crashing halt in 2015. Economic mismanagement by his handpicked successor, Dilma Rousseff, did not help. GDP per person fell by 8% from 2014 to 2016, leaving millions jobless and unable to feed their families.

The governments that followed oversaw a "radical dismantling" of Brazil's pro-poor policies, says Renato Maluf of PENSSAN, who also advised Lula's campaign. Under Jair Bolsonaro, a right-wing populist who was elected in 2018, the hungry were initially a low priority. In 2011 Mr Bolsonaro, then a congressman, called Bolsa Família's beneficiaries "ignorant wretches". During covid-19, however, he launched a cash-transfer programme that helped many. But these handouts were not enough to stave off hunger for the poorest. Inflation is easing but the prices of food and non-alcoholic drinks were up by more than 11% year-on-year in December.

People from the *favelas* of Rio de Janeiro are turning up at state hospitals with minor ailments, hoping to be checked in just so they get a hot meal, says Rodrigo Afonso of Ação da Cidadania, a charity. Rural households are doing little better.

For many of the poorest in Brazil, Lula's victory comes as a relief. So far, it looks like the new president and his Workers' Party will manage to keep their promise to bring hunger down. In December a Supreme Court ruling that raises government-spending limits helped save Lula's plans to continue Bolsa Família.

More on the menu

But Lula may have a harder time pushing through other pro-poor policies. He won the presidential vote with the narrowest margin—1.9 percentage points—since Brazil's return to democracy in the 1980s. He faces a Congress dominated by conservatives. And the government is desperately short of funds. Among G20 countries Brazil had one of the most generous fiscal responses to the pandemic. Congress declared a "state of calamity" to bypass a constitutional ceiling on spending, allowing gross public debt to climb to a peak of 88% of GDP in late 2020.

Hunger is not the only thing Lula has to worry about. The country has a productivity problem, too. Even in the commodities boom output per worker grew on average at just 1% each year, according to Capital Economics, a consultancy. Analysts expect that output will expand by less than 1% in 2023. Since the election, the government's borrowing costs have ticked up as lenders worry about soaring spending on social protection. The president faces a tricky balancing act. ■

Security in East Asia

Stronger, faster

TOKYO AND WASHINGTON, DC

Japan is making tough choices in order to improve its defences

SPEND ENOUGH time on Japanese military bases and in policymakers' offices, and you will eventually encounter the same unusual map. It depicts East Asia rotated 90 degrees anti-clockwise, as if to show the region from Beijing's perspective, looking out across the East China Sea. The Japanese archipelago, and in particular the Nansei island chain stretching from Kyushu to Taiwan, seems to form a wall. China's ambitions for a greater global role, the map suggests, run right through Japan.

In recent years this precarious position has encouraged Japan to do more to ensure its security. When the late Abe Shinzo was prime minister, Japan beefed up its Self-Defence Forces (SDF)—as its armed forces are called, in deference to its pacifist constitution—and loosened laws that limit their ability to use force. Yet such steps were incremental—and also controversial. Plenty of people in Japan worried about backsliding towards militarism.

Changes have accelerated in the past year. In December the government updated its National Security Strategy and two important defence-policy frameworks. Japan will spend vastly more on defence and acquire powerful new weapons. China's belligerence, under Xi Jinping, has helped fuel this. But Vladimir Putin's invasion of Ukraine has played a bigger role. "The basic assumption for years was that we won't have to fight a war," says Sasae Kenichiro, a former diplomat who chaired a council advising on the new security policies. "Now for the first time, the Japanese people sense the possibility of armed conflict in this region and are asking what it means for Japan."

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Shifts in public opinion have allowed the government to take steps that were taboo just a few years ago. Keeping defence spending capped at around 1% of GDP has been an informal but inviolable rule since 1976. Now Japan plans to raise spending to 2% of GDP by 2028, and cough up an additional ¥43trn ($326bn) over the next five years. Japanese leaders have long refrained from acquiring long-range missiles, even though the government concluded, back in 1956, that doing so would not breach the constitution. Now Japan plans to purchase hundreds of cruise missiles from America and develop its own long-range missiles. Whereas Abe's reforms drew tens of thousands out to protest, the latest changes have attracted support from a majority of Japanese in polls.

War in Ukraine has pushed Japan to think more about what combat would involve. "Putin did it, why not Xi?" says one senior Japanese official. "Dictators are not always rational."

Japan plans to spend a big chunk of its new defence money stocking up on parts and ammunition, as well as hardening military facilities against missiles. The SDF also hopes to catch up in cyber-warfare, where it is a laggard. Officials think Japan would not withstand the kind of cyber-onslaught Ukraine has faced; they reportedly plan to quadruple the size of Japan's cyber-forces by 2028, to about 4,000 people. The SDF will adapt its command structure by establishing a joint headquarters with a ▸▸

single figure responsible for overseeing ground, air and land forces.

All this has delighted foreign-policy types in America. "I have rarely had such a sense of elation about the celebration of the US-Japan relationship," Kurt Campbell, who oversees Indo-Pacific affairs in the White House, gushed after Kishida Fumio, Japan's prime minister, met Joe Biden on January 13th. For American planners, Japan's size, economic heft, strategic geography and military potential make it the most important Indo-Pacific ally when it comes to counterbalancing China. Japan has become essential, in particular, to America's plans for responding to crises around Taiwan. In the 1990s "our attitude was: fine, we'll do it ourselves," says Michael Green, a former senior American official. "That's not the attitude anymore—we can't do it without Japan."

America has announced plans to make Okinawa, in southern Japan, the base for one of three new "marine littoral regiments", designed to scatter along the island chain, avoid detection and seek to close sea passages to Chinese ships. The two countries have also declared that their alliance extends into space and agreed to expand joint training and use of military facilities. Although Japan does not have a combined command with America (unlike South Korea or NATO), it will need American help with targeting and intelligence to use the new missiles it desires. That will require "a command-and-control system that is more integrated than ever before," said Oue Sadamasa, a retired Japanese air force general, at a recent seminar in Tokyo.

For all the bonhomie, doubts about America's staying power are also helping drive Japan's reforms. Officials have concluded from watching the war in Ukraine, and America's withdrawal from Afghanistan, that America will only come to the aid of those who are ready to fight for themselves. Japan is seeking to strengthen ties with its other partners: on his way to America Mr Kishida stopped in London to sign an agreement with Britain that makes it easier for soldiers to train and operate in each other's territory. Japan is also planning to develop a next-generation fighter jet with Britain and Italy. Japan, like others, worries about the possible return of Donald Trump or one of his acolytes. "We have to think about Plan B," says one influential scholar.

Many in Japan question whether the new policies will work out. Mr Kishida has yet to clarify how he will finance the new spending; the ruling Liberal Democratic Party is split on whether to raise taxes, cut spending or issue more government bonds. The plans will require more personnel, but Japan's population is shrinking and the SDF already struggles to meet recruitment targets. And it is still unclear how the public would respond if Japanese soldiers were actually sent into combat.

Japan must also communicate clearly what it is up to, lest its changes only end up fuelling conflict. Co-operating more closely on security with South Korea, another American ally, would help deter China. But the Japanese build-up makes many in Seoul wary. China itself has been caustic: "This reminds us of the last time Japan took a wrong turn and brought a terrible disaster to Asia," crowed the *Global Times*, a Chinese tabloid. One risk is that China does not see a wall being fortified, but a force creeping towards it. Japan is trying to offer some reassurance: its new security strategy refers to China as a "challenge" but does not label it a "threat", as some hawks had sought. Japan, for better or worse, cannot change its place on the map. ■

Indian infrastructure

Cracks in the façade

JOSHIMATH

A sinking mountain town sparks debate about development

IT IS NEARLY two years since cracks appeared in the walls of the house in which Durga Prasad Saklani lived with his wife and daughters. Since then the 52-year-old from Sunil, a village near Joshimath in the state of Uttarakhand in the Himalayas, has filed endless petitions warning that his home is sliding down the mountain. For a long time, says Mr Saklani, "nobody cared".

India's government wants to develop the country's remotest corners. Problems around Joshimath underline the difficulty of doing that in the Himalayas. The town is a jumping-off point for hikers and people going to sacred sites at loftier altitudes. Its usefulness to pilgrims—and the recent collapse, due to subsidence, of at least one local temple—makes its travails a particular challenge for the ruling Bharatiya Janata Party, which likes to show off its piety.

Falling apart

Authorities began paying attention to people such as Mr Saklani earlier this month, when cracks that were already visible around town began to multiply. Satellite imagery suggests the area sank by more than 5cm (2 inches) in 12 days during the new year period, having already subsided by 9cm between April and November last year. The district stopped all construction, declared hundreds of houses unsafe and moved their inhabitants, including Mr Saklani and his family, to temporary accommodation. The five of them are now living in one hotel room. The government has given them 150,000 rupees ($1,800) in compensation. At least officials are taking notice now, says Mr Saklani.

Joshimath's most recent drop may have resulted from the bursting of a groundwater reservoir. What caused that is under investigation. But a high risk of subsidence in the area was recognised in the 1970s, when a government commission concluded that Joshimath's location—built atop sand and stone deposited by an old landslide—made it a poor venue for large-scale development. Melting glaciers have since left behind more loose material which has pushed up the dangers, says Sarswati Prakash Sati, a geologist from Uttarakhand.

Nearby towns and villages are affected by similar issues. Yet in recent years there has been little opposition to big construction projects designed to attract tourists. "What is the use of scientific research and reports if they are never executed?" wonders Mr Sati.

Many locals blame Joshimath's most recent descent on a road built between Hindu pilgrimage sites and on a hydropower project, both of which the central government supports. Atul Sati, a local activist, said that for years the government has failed to protect the town, even after a landslide two years ago that killed 200 people. The head of a local Hindu monastery told reporters that "the planned destruction of the Himalayan region" through development risked Joshimath's survival as a religious and cultural centre.

The government denies that its development projects are to blame. But it is worried about public opinion. In mid-January the National Disaster Management Authority told officials and scientists in Uttarakhand to stop speaking to the media. A study detailing the extent of the subsidence has disappeared from the website that published it. Some fear the government plans to paper over the cracks. ■

Renuclearising

Loose talk about nukes

SEOUL AND WASHINGTON, DC

South Korea’s leader muses about his country getting nuclear weapons

RASH TALK about nuclear weapons is common from North Korea; less so from the South. In a speech given on January 11th Yoon Suk-yeol, South Korea’s conservative president, speculated that a day may come when the threat from North Korea requires America to deploy nuclear weapons back to the peninsula. Failing that, he said, South Korea could “acquire our own nuke”. He said that this would not take long, given his country’s technological prowess.

It is the first time in decades that a sitting South Korean president has talked about going nuclear. His remarks were admittedly casual, says Yang Uk of the Asan Institute for Policy Studies, a think-tank in Seoul, who was in the room. And they cropped up within a somewhat meandering speech that required its audience to imagine a number of hypotheticals.

Yet it is not the first time Mr Yoon has caught America unaware by speculating about a more robust nuclear policy. Nukes are plainly on his mind. The past year has brought a record number of North Korean missile shots, as well as preparations for a long-expected seventh nuclear test. Diplomacy aimed at “complete denuclearisation of the Korean Peninsula” seems hopeless. And the intensifying rivalry between America and China is worsening military tension in Asia.

Mr Yoon’s words may thus have several intended audiences. The first is domestic. Taking a hard line against North Korea pleases his conservative base. Several polls show robust public support for an indigenous nuclear deterrent. Another is North Korea. In the same speech Mr Yoon said the most effective deterrent against aggression would be to convince the North it would be hit “100 or 1,000 times” more strongly than any blow it could land. A third target may be China, which is being warned that it may one day have another nuclear state on its periphery if it does not do more to rein in North Korea.

Mr Yoon’s main audience is probably America. As North Korea tests missiles with the range to hit the American homeland, many South Koreans are scared that the United States might not risk the destruction of, say, Seattle, to defend Seoul. Donald Trump’s talk of leaving South Korea to defend itself, and the possibility that he or a similarly minded candidate might succeed President Joe Biden in 2025, increase the fear of abandonment.

South Korea’s president may be seeking stronger American assurances. In November the two countries agreed, among other things, to hold tabletop training exercises that “include a DPRK nuclear use scenario”. But they disagree over what this means. The South Koreans have repeatedly suggested they were discussing “joint nuclear weapons planning and exercises” with America that would be tantamount to NATO-style “nuclear sharing”, in which allies get a say on the use of nuclear weapons (and some are tasked to deliver them). Joe Biden, America’s president, shot down that suggestion with a curt “no”.

Jon Wolfsthal of Global Zero, a group that seeks the abolition of nuclear weapons, thinks Mr Biden will not offer a more tangible nuclear commitment. He notes that America’s nuclear weapons “are like Domino’s Pizza: we can be there in 30 minutes, or your money back”. America, he says, would resist South Korea building its own nukes.

Mr Yoon is highly unlikely to go that far. “He’s not saying we will go nuclear today or tomorrow,” says Mr Yang. After his speech, Mr Yoon’s office quickly restated South Korea’s commitment to nuclear non-proliferation. The danger, however, is that his loose talk may only create a split with America—to the delight of North Korea and China. ■

Chinese cosmetics

Making faces

TOKYO

Japanese youngsters want to look like Chinese starlets

WHITE GLITTER shimmers around Chang Chia-jung’s eyes. Her lips are bright red; her skin glows. Ms Chang, who was born in Taiwan and now lives in Japan, is a fan of what she calls *chuuka meiku* (Chinese make-up). She learned from influencers on RED, a Chinese social-media site. Now she posts tutorials of her own for Japanese audiences. Her skills have earned her thousands of followers on Instagram and Twitter.

Beauty gurus across Japan are going potty for styles of make-up made famous by starlets from China. The boom began four years ago with the break-out success of a look known as Chiborg. That combines the words for China and cyborg; it aims to make young faces seem preternaturally chiselled. More trendy now is *chunyu* (pure desire), which involves trying to look alluring and innocent all at once. Chinese celebrities have beauty “on another level”, says Nanako (pictured), a 24-year-old Japanese woman who also has lots of followers online.

Enthusiasm for these styles is driving up sales in Japan of Chinese brands of cosmetics, such as Florasis and ZEESEA. Older Japanese have long avoided Chinese products, which they consider inferior. But their children are less likely to assume this, with some justification. For years Japan had the world’s second-most-valuable market for cosmetics, after America; the Chinese market outgrew it in 2019. China’s make-up firms have grown more competent, and more inventive, as their sales have ballooned.

Tensions over disputed islands and Taiwan have poisoned ties between Japan and China in recent years. But unlike the trade in products such as semiconductors, which governments seek to control, cosmetics are “apolitical”, says Goto Yasuhiro of Asia University in Tokyo. Behind the rows, he says, youth cultures in Japan, China and South Korea are growing increasingly alike.

A survey in 2021 suggested that more than 40% of Japanese aged 18-29 feel “affinity” towards China, compared with only 13% among those in their 60s and 70s. Sugai Fumihito, who works for an outpost of the Beijing Language and Culture University in Tokyo, says many youngsters studying Mandarin at his institution cite Chinese make-up as a reason for their interest. “I never imagined a day when Japanese consider Chinese to be ‘cool’,” he says. “Lots of Japanese have started to admire Chinese people,” echoes Ms Chang. “That’s thanks to Chinese make-up.”

Politics in New Zealand

The tank runs dry

New Zealand's prime minister announces her resignation

Jacinda Ardern said tearfully that she had found "time for reflection". Being prime minister requires you to have "a full tank, plus a bit in reserve for those unexpected challenges", she declared at a meeting of her Labour Party in the city of Napier. After five years as New Zealand's leader, the tank had run dry. Ms Ardern announced that she would step down as prime minister no later than February 7th, and perhaps as soon as January 22nd. "I am human. Politicians are human," she explained. "We give all that we can, for as long as we can, and then it's time."

Few saw that coming. Since being elected prime minister in 2017, at the age of 37, Ms Ardern has steered her country through a mass killing, a volcanic eruption and the covid-19 pandemic. At a time of rising populism, she gained a reputation for kindness. When a white-supremacist shot dead 51 mosque-goers in Christchurch in 2019 she donned a headscarf, embraced grieving families and coined a national refrain by declaring: "They are us." In early 2020 she was quick to close New Zealand's borders in response to covid. The death toll from the pandemic stayed low.

Her prowess also puffed New Zealand's reputation overseas. At home, Ms Ardern won the last election in 2020 with 49% of the vote—the best result for any party since 1951. However, her pulling power has lately weakened. Successive polls have shown that Labour is trailing National, the main opposition party. One poll conducted in December found that 38% of New Zealanders would vote for the conservatives in the coming election, compared with 33% for Ms Ardern (though she was still their preferred prime minister).

That reflects an increasingly gloomy mood. Inflation in New Zealand is above 7%. Between 2020 and 2021 house prices rocketed by 25%, leaving New Zealand with some of the most expensive homes in the English-speaking world. Many Kiwis grumble that they cannot afford to buy or rent a property.

This is not what Ms Ardern promised. She came into office with lofty plans to "build a fairer, better New Zealand" by slashing child poverty, ending homelessness and erecting 100,000 cheap houses. But that "idealism collided hard with reality", in the words of David Seymour of the right-wing ACT Party. Labour's affordable-housing targets were scrapped. A well-intentioned policy to put homeless people into emergency accommodation is blamed for causing crime. Gangs are warring. Kiwis have been getting worried about a spate of ram-raids—an ostentatious kind of theft that involves driving cars through shop windows.

Whoever succeeds Ms Ardern will have an awful lot to do ahead of a general election which is due to take place on October 14th. The most obvious replacement, Grant Robertson, the deputy prime minister, has already ruled himself out. The "continuity candidate" would therefore be Chris Hipkins, a 44-year-old who oversaw New Zealand's pandemic response, argues Neale Jones, Ms Ardern's former chief of staff.

A choice could be made as soon as January 22nd, when a vote will be held among the party's caucus in Parliament. If two-thirds of them agree on a new leader, that person will immediately replace Ms Ardern as prime minister. If they do not, Labour's members will also get a vote. Do not expect the kind of mania that accompanied Ms Ardern's rise. She pulled her party out of the doldrums in 2017, and catapulted it to victory amid a bout of "Jacinda-mania". Her successor might be lucky just to limp back into office. ■

On her way out

Afghanistan

Killing women

A murder in Afghanistan highlights the misery of women

When the Taliban took power in Afghanistan in August 2021, thousands of Afghans who had been associated with the American-backed government fled. Mursal Nabizada, an activist and former parliamentarian, chose to stay. Afghanistan, as she put it, was not like a restaurant you can leave if you do not like the service. It was her home.

In mid-January Ms Nabizada was shot dead in Kabul, the capital. It is not yet clear who killed her. But her murder provides another appalling glimpse of how life in Afghanistan is deteriorating—for women and girls in particular. Under the Taliban, people who mistreat or attack women have much less reason to fear punishment. "The gloves have come off," reckons Ashley Jackson of the Centre on Armed Groups, an NGO based in Geneva. "Anyone can do anything to a woman."

At the Taliban's first press conference after seizing power a spokesman announced that women would be "very active" in Afghan society. There was some hope that "Taliban 2.0" would set itself apart from the brutish regime that ran the country from 1996 to 2001. But moderate voices are being drowned out by diehard mullahs in Kandahar, the group's southern stronghold. Steve Brooking, a former special adviser to the UN in Afghanistan, says it is "the ideologues, rather than the pragmatists, who are in charge".

In March last year girls were told they could start returning to secondary schools,

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▸ but were then sent back home as soon as they turned up. Bosses in Kandahar apparently ordered that reversal at the last minute. Since then, new rules have forced women to cover their faces in public, sought to ban them from going out without a male escort, and barred them from parks and gyms (how strictly these rules are enforced varies around the country). In the past month alone, the Taliban has ruled that women may not attend university and may not work for NGOs.

These edicts are impoverishing the country. The UN thinks the share of households for whom humanitarian assistance is the main source of income has increased six-fold since 2021. Across the country some 20m people are at risk of severe hunger. An unusually cold winter has worsened the situation.

Afghanistan received more than $3bn in humanitarian aid last year, delivered mainly by the UN and NGOs. But confusion over whether and how women are permitted to work for such organisations is stopping assistance getting to people who need it. Female aid workers are indispensable in places where women are loth to let unknown men into their homes, or to discuss topics such as their health. On January 16th Amina Mohammed, the UN's deputy secretary-general, arrived in Afghanistan to discuss this crisis, and all the others.

Last year only 12% of Afghan women told Gallup, a pollster, that females are treated "with respect and dignity", down from 26% in 2021. Marzia Babakarkhail, a former judge in the country's Supreme Court, says the Taliban's rules are pushing millions into poverty and are greatly harming mental health. "They are killing women in a thousand different ways." ■

Banyan One word to rule them all

Who gets to define what Asia means?

WHEN RISHI SUNAK became Britain's first non-white prime minister last October, Ronny Chieng, a Chinese-Malaysian comedian, was charged by "The Daily Show", an American satirical current-affairs television programme, with commenting on the news. "I know everyone is really excited that this is the first Asian prime minister. But let's be clear: Indians are not Asians," he declared.

The segment provoked a minor backlash in America. But some viewers in Asia nodded along, for Mr Chieng's tongue-in-cheek rant struck at something they recognised. For centuries the people of the region's western and southern parts and those of the east and south-east have struggled to make sense of each other. That struggle is at the heart of "How Asia Found Herself", a new book by a historian, Nile Green, who teaches at the University of California, Los Angeles.

The term Asia was coined by Greek geographers some two millennia ago and did not appear on the continent it described until the 1600s, at the dawn of the age of European empire. The foreign roots of the word—and the concept—are visible in the transliterations that Asians made as they grappled with the idea: *Asiya* in Arabic, Persian and Urdu; *Esiya* in Bengali and Gujarati; *Ajia* in Japanese; *Yaxiya* in Chinese.

It took until the 19th century for the term to catch on, and even then its most salient use was oppositional: Asia as an anti-colonial device, as "not Europe". Even the "Asian values" promoted by Lee Kuan Yew, Singapore's founder, are best understood in opposition to Western ones. The irony, as Mr Green notes, is that it was European colonial infrastructure that in many cases made inter-Asian cultural exchange possible, whether through steamship routes that opened up the ports of the Indo-Pacific to traders, missionaries and intellectuals, or, more notably, through European languages that served as a bridge between the vast number of Asian tongues.

As late as the 20th century there were few dictionaries between major Asian languages such as Japanese, Urdu, Chinese and Persian, let alone between minor ones. Sometimes this led to comic outcomes. When Baha'i missionaries sought to convert Japanese in 1914, they resorted to the use of Esperanto, a language invented in Poland in 1887. Similarly, indigenous literature on other Asian cultures was scant, requiring scholars to look to English, French or Russian sources.

When intellectuals from across the continent chose to engage with the idea of Asia as something that united them, it was often as a form of self-projection. Chinese intellectuals looked upon India, whose people had been unable to fight off colonisation, as a lesson in how not to fail. Indians speculated on the influence of ancient Hindu scriptures on Daoism, or of India's warrior caste on Japan's samurai.

Asian Muslims attempted to reconcile the new (to them) religions of Buddhism, Confucianism, Daoism and Shinto with their own faith, casting the Buddha as an Islamic prophet or Confucius as a philosopher. Japan's Asianists saw their own country as a natural leader, notably through the imperialist project of a continental "co-prosperity sphere". Acceptance of the idea of Asia did not automatically lead to a sense of brotherhood or respect. As Mr Green writes, "the search for solidarity always raised the question: unity on whose terms?"

In the 1930s an Indian freedom fighter, Rash Behari Bose (who married a Japanese woman and would die a Japanese citizen), proposed to the proto-Hindu-nationalist Veer Savarkar that "every attempt should be made to create a Hindu bloc extending from the Indian Ocean up to the Pacific Ocean." Some 70 years later Abe Shinzo, then prime minister of Japan, extolled to India's parliament the idea of a "broader Asia" taking shape "at the confluence of the two seas of the Indian and Pacific Oceans". What geopolitical analysts have more recently come to call the "free and open Indo-Pacific" now takes in America and Australia as partners in the grouping known as the Quad, which seeks to counterbalance the rise of China.

Not for the first time, the idea of inter-Asian co-operation includes—and indeed relies upon—the technology and infrastructure of the West. And once again, as one Asian country seeks to draw smaller states into its own sphere, other powers find themselves asking: "Asia on whose terms?" The concept of Asia has for centuries and despite many efforts defied definition. And so once again, in the guise of the Indo-Pacific, it is at its most useful when defined in opposition.

Demography

Struggling to stay on top

For the first time since the 1960s, China's population is shrinking. Its long reign as the world's most populous country is probably at an end

"WE ARE THE last generation." As news, released on January 17th, that the country's population had fallen last year for the first time in decades swept Chinese social media, some commenters used these doom-laden words. They have a special resonance in China. During a weeks-long lockdown in Shanghai last year to prevent the spread of covid-19, an angry resident spat them at a hazmat-suited policeman who had warned him that punishment for violating pandemic-control rules would affect the young man's family for three generations. The retort, captured on a mobile phone, quickly went viral. Now, as its meaning truly sinks in, some are recalling it.

According to the National Bureau of Statistics, China had 1.412bn people at the end of last year, 850,000 fewer than at the start. Not since 1962, after millions died in a man-made famine triggered by Mao Zedong's "Great Leap Forward", had the country recorded a shrinking of its population.

This time the main cause is not an unnatural number of deaths. On December 7th China scrapped its nearly three-year-long "zero-covid" policy, causing a surge of infections and many fatalities. On January 14th officials said there had been nearly 60,000 covid-related deaths since then. The actual number is much higher (the official number includes only deaths in hospital and covid deaths are often not recorded as such). But officials say December's toll from covid is not reflected in the population figure. The reason for the decline is clear: a plummeting desire to reproduce. For many Chinese, even married ones, there will be no next generation.

Only a few years ago, however, many Chinese scholars and the UN were expecting that China's population would peak around 2030. That it has reached the turning-point much sooner will be sobering for the country's leaders. It is yet another reminder that China no longer enjoys the demographic dividend of a huge supply of cheap labour to boost its growth (which the statistics bureau said was 3% last year, one of the lowest rates since the end of the Mao era). Now China is ageing rapidly. Its working-age population began shrinking in 2012. It is following the path of countries such as Japan and South Korea, without having first grown rich, and without having spent enough money on medical and other forms of care that the ballooning cohort of elderly people will need.

The government has tried desperately to remedy this, though far too late. It was not until 2016 that it gave up its decades-old policy of forcing many people to have no more than one child. In 2021 it switched to a three-children-per-couple policy, which is more an aspiration than a restriction. Having more is not punishable. This relaxation—accompanied by a slew of incentives to have children, ranging from cash handouts to tax breaks and longer maternity leave—has had little impact.

According to the latest figures, 9.56m babies were born in 2022, nearly 10% fewer than in 2021. The rate was the lowest since

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the Communist takeover in 1949. A decade ago the total fertility rate (the average number of children a woman is expected to have over her lifetime at current birth rates) was 1.7. In 2021 it fell below 1.2, UN figures show (see chart). For a population to remain stable, the rate should be about 2.1, assuming no net migration and that mortality rates remain unchanged.

There are several reasons why baby-making is becoming less popular. The main one is the cost of rearing children. Last year the YuWa Population Research Institute, a think-tank in Beijing, reported that such expenses, as a ratio of GDP per person, were higher in China than in several advanced economies, including America. It identified only South Korea as a more expensive place to have kids. (That country has the world's lowest fertility rate.) YuWa warned that China's declining birth rate could have a "serious negative impact" on the country's ability to innovate and its "overall national strength".

Government handouts have done little to ease the burden on parents. On January 10th the city of Shenzhen proposed that couples having a third child (or additional ones) be given subsidies totalling 19,000 yuan ($2,800) during the first three years of the child's life. But that would amount to only about 8% of the total costs, according to an official estimate published by state media. Despite a recent slump in China's property market, prices are still high. Couples often put off getting married until they have bought a home. The numbers tying the knot have been falling since 2014.

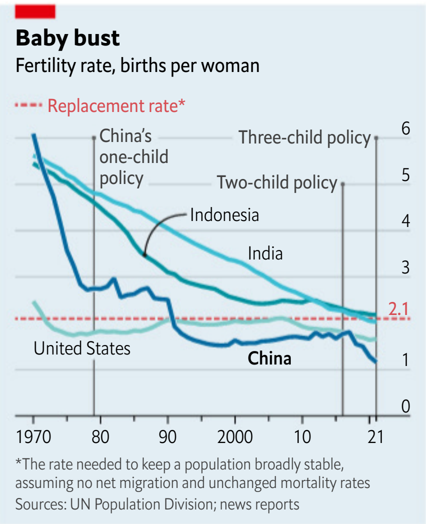
Another economic barrier to childbirth is the cost of looking after the elderly. About 35m Chinese are aged 80 or over. By 2050 the number is expected to more than quadruple. Unless the government massively steps up its spending on care, families will pick up much of the tab.

The reluctance of some young Chinese to marry and reproduce is also a sign of how traditional values are changing. Women are pushing back against the gender inequality of wedlock. The internet seethes with resentment of the idea, implied by the government's efforts to encourage bigger families, that they become baby-making machines. Some young people, men as well as women, call themselves "chives", suggesting their resentment of how they are cynically seen as something to be harvested (ie, exploited) in pursuit of national or corporate goals. "Getting married and having little chives can only harm my personal development and lower my quality of life," wrote one commenter on Weibo, China's version of Twitter, about news of the fall in population.

There is soon likely to be another surge of interest in the topic among Chinese netizens. The UN predicts that India's population will surpass China's in April. Some believe this has already happened. The end of China's reign as the world's most populous country, a position it has held for hundreds of years, will not please Chinese nationalists. Is it possible, they will wonder, that India, long left in the dust by China's rapid rise, will be able to take advantage of its still-growing working-age cohort to catch up with China, and eventually to rival its power? It will be a year of much demographic head-scratching. ■

Baby bust

Fertility rate, births per woman



*The rate needed to keep a population broadly stable, assuming no net migration and unchanged mortality rates

Sources: UN Population Division; news reports

China, Africa and space

Preparing for launch

A planned spaceport in Djibouti may give China a boost

When China began building its first overseas military outpost—a naval base in Djibouti—America and its allies were alarmed. The facility, which opened in 2017, sits just 13km (eight miles) from America's largest base in Africa. France, Japan and Italy have bases there, too. Before long the Americans accused China's forces of shining lasers at their pilots. China complained that Western aircraft were overflying its outpost to photograph it.

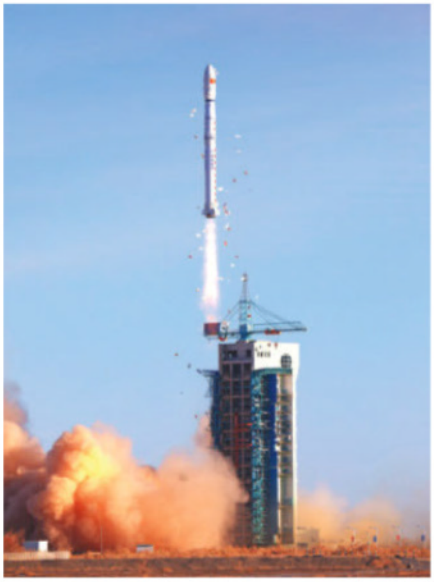
That friction has since lapsed into grudging coexistence in the former French colony, which is not much bigger than New Jersey. But a new threat to this uneasy balance has emerged with the announcement on January 9th that a Hong Kong-based company with links to Huawei, a Chinese telecoms giant, will build and operate a spaceport covering at least ten square kilometres (four square miles) in Djibouti.

The facility will include seven launch-pads and three rocket-testing pads, says Hong Kong Aerospace Technology Group Ltd (HKATG), which signed a memorandum of understanding on the project with Djibouti's government and a Chinese company that operates a special economic zone there. In March they will sign a contract for the deal, which allows construction of power stations, water plants, roads and seaports, said HKATG.

Ismail Omar Guelleh, Djibouti's president, said on Twitter that the $1bn spaceport will take five years to build and be transferred to the government after 30 years. He has long sought to boost the economy through Chinese-funded infrastructure projects. But the pay-off has been less than anticipated and Djibouti has recently been at high risk of debt distress.

If completed, the spaceport offers Djibouti a chance to claim a piece of the multi-billion-dollar global space industry. There are about two dozen active spaceports worldwide. Africa has none: the French abandoned theirs in Algeria after it won independence in 1962, and Italy has stopped using one in Kenya since joining the European Space Agency.

Djibouti has much to offer. It is not far from the equator, where the Earth rotates fastest, giving rockets a boost. Access to the sea would enable clients to import rockets and other bulky equipment by ship. They could also launch eastwards over the ▸▸



A red rocket

ocean, minimising risks for people in surrounding areas while taking advantage of the Earth's rotation.

There are drawbacks, too. Shipping rockets and satellites across the world is costly and can face regulatory obstacles. America, in particular, makes it difficult to export space-related equipment. Djibouti's geopolitical environment is complex, given its military bases and civil conflicts nearby. Several other countries are planning new spaceports in the coming years.

But for China, which hopes to develop a private space industry to rival America's, Djibouti could provide an alternative to the four launch sites on its own soil (one of which is pictured on the previous page). These are operating at capacity, says Thomas Roberts, author of a report on spaceports for the Centre for Strategic and International Studies in Washington. A Djibouti spaceport could lower congestion but would more likely be a backup to China's Wenchang launch site, its closest to the equator, he says. China has not shipped rockets abroad before, he notes, but it would not be the first space power to do so.

HKATG, which says its main business includes designing, building, launching and controlling satellites, cited bottlenecks at China's spaceports as the main reason for building the one in Djibouti. The company has previously relied on Chinese rockets; it did not say if it planned to use them in Djibouti. It declined to elaborate on its announcement.

Either way, the deal is likely to be scrutinised by American and allied officials. They have long fretted over the role of the People's Liberation Army (PLA) in China's space industry and, in recent years, they have tracked its efforts to establish space-related facilities in countries involved in its Belt and Road infrastructure scheme.

Hong Kong-listed HKATG is a private company but has worked closely with the state-run China Great Wall Industry Corporation, which handles the mainland' s international space business. HKATG's executives include former Hong Kong officials. One was a founding chief executive of the China-United States Exchange Foundation, which American officials consider a vehicle for Chinese political influence.

HKATG also works with Huawei, whose products America has banned at home and pressed allies to ditch from mobile networks, claiming it has ties to the PLA and could be involved in spying (Huawei denies the claims). One HKATG project is a constellation of some 100 remote-sensing satellites, ten of which it says are in orbit. With Huawei, that will provide "smart city" and other services in southern China. HKATG also talks of building a similar global service. What role Djibouti might play is unclear, but some of its foreign residents will be keen to learn more. ■

Covid-19

Has it peaked?

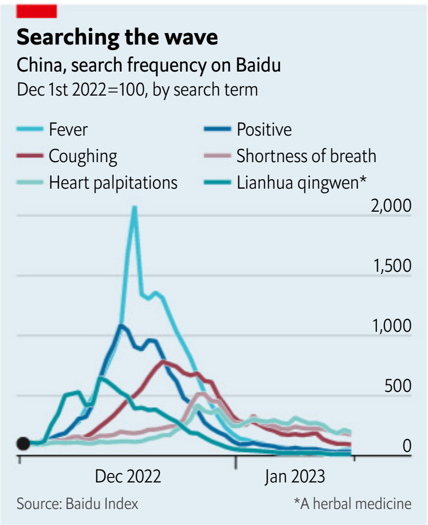
The virus has already torn through large swathes of the country

THERE WERE many predictions about the rate at which covid-19 would spread in China. The Institute of Health Metrics and Evaluation in America thought cases would peak on April 1st. By that time, it said in December, a third of the country's 1.4bn people would have been infected. Airfinity, a London-based data firm, said the peak would come on January 13th, with a second occurring on March 3rd. It predicted there would be 223m infections by May. *The Economist*'s own model suggested that, if the virus spread unchecked, the outbreak would be at its worst in early January, having infected 75% of the population.

A lack of good data makes it hard to assess these projections. But statistics, anecdotal evidence and unconventional indicators suggest that covid may already have swept through large swathes of China.

The authorities are pushing the idea of an outbreak on the wane. On January 14th the National Health Commission said the number of visits to fever clinics peaked on December 23rd at roughly 2.9m, and that it has since declined by over 80%. The number of patients with severe symptoms of covid peaked two weeks later. A study by Peking University estimated that, by January 11th, 900m people in China had already caught covid. The government, perhaps wary of losing control of the narrative, quickly deleted reports and social-media posts about the study from the internet.

A calm countryside manner



Searching the wave

China, search frequency on Baidu

Dec 1st 2022=100, by search term

Source: Baidu Index

*A herbal medicine

Many observers had worried that the travel rush surrounding the Spring Festival, which begins on January 22nd, would bring covid from cities to remote areas. But the virus appears to have reached many of these places already. Earlier this month, when our Chaguan columnist visited Weiji, a village in Henan province, a doctor told him that 90% of locals had caught covid. An article dated January 9th in *Farmers' Daily*, a state-run newspaper, noted feverish people working in rural Shandong province. The virus had been there, too.

In America, a good predictor of case counts early in the pandemic was Google searches for the loss of taste or smell (a symptom of early variants). So *The Economist* scraped data from Baidu, China's search giant, to see if they offered clues about the country's outbreak. Searches for "lianhua qingwen", a herbal medicine used against covid (with doubtful effectiveness), peaked on December 12th (see chart). Searches for "fever" reached a high five days later. Searches for "shortness of breath", a lingering symptom of severe covid, peaked on December 27th.

It is a fuzzy picture, to be sure. Least clear of all is the covid death toll. China claims that from December 8th (a day after it lifted most covid controls) to January 12th some 60,000 people died from the virus. The real number is far higher, as the official toll refers only to those who died at medical facilities—and doctors have been discouraged from citing covid on death certificates. Our model suggests the number of covid deaths may top 1m.

Even if infections have peaked in China, things may still get worse. Subsequent waves of the virus killed more than the first in countries such as America and Britain. The Chinese government may be hoping that most people develop some level of natural immunity, lessening the impact of a second wave. Another way to do that is by vaccinating more people. ■

Chaguan | Riding the slow train in China

Talking to migrant workers heading home for lunar new year

FOR OFFICIALS in Xi Jinping's China, making trains run on time is more than a figure of speech. As Mr Xi enters his second decade as supreme leader, his sternly paternalist version of Communist Party rule seeks to draw ever more legitimacy from the provision of customer-friendly public services, supplied via modern infrastructure. In the case of China's railways, at least, that promise of order and efficiency has been kept.

From January 7th to February 15th the transport ministry predicts that 2.1bn journeys will be made by Chinese heading home for the Spring Festival, or lunar new year. Some will be urban professionals, gliding between cities on high-speed trains. Many will ride slower *lü pi huoche* or "green-skin trains", squeezed into crowded carriages or sitting on corridor floors as they trundle across China on journeys that may last 40 hours or more. Many millions of them have not seen home towns or villages—and in many cases their own children and the ageing parents who care for them—for two years, because of pandemic travel curbs.

On January 16th alone China's rail network carried 8.3m travellers. Chaguan was one of them, buying a standing-room ticket for the first day of a two-day train journey from Guangzhou, in the south, to Urumqi in the far western region of Xinjiang. Chatting in Guangzhou station before dawn, or during long hours rolling through southern China, older passengers remembered the chaos of Spring Festival migration 30 years ago. Back then passengers would climb through windows into trains so full that people would sleep on luggage racks or stand in lavatories. Even 20 years ago new-year trains were cluttered with boxes of fruit, cooking oil, clothes and bedding that workers felt obliged to carry home.

Today the crush is less intense. Many employers allow more flexible departure and return dates, as China's labour force shrinks and workers become harder to find and keep. Goods ordered online can be delivered to villages year-round, so there is less demand for physical new-year gifts (red packets of cash for children remain obligatory). More migrants drive home in shared private cars. The train networks have grown hugely. Stations are busy but not overwhelmed. Passengers queue to board trains, with priority lines for children and the frail. There are countries where Chaguan had to pay bribes to board a train or plane. On the Guangzhou-Urumqi run, there are no signs of graft. Seatless passengers queue at the on-board conductors' office, identity cards in hand, to be allocated places that open up between certain stops, as passengers get off. A primly cheerful holiday atmosphere prevails, like an orderly school trip. Passengers joke that food vendors should give away free holiday meals. A young woman attendant, trim in a brass-buttoned jacket, tells a colleague struggling down a packed aisle that he is to blame for being fat.

Yet amidst all this efficient service, old divisions of class, wealth, ethnicity and gender can be heard, too. For green trains are rolling cross-sections of life in China, a still cruelly unequal place. Some discrimination is blithely unconscious. A passenger teasingly asks the Urumqi-based crew whether they are Xinjiang natives, meaning Uyghurs. "Do I look like an ethnic minority?" the Han Chinese woman attendant laughs.

Decades of economic growth created winners and losers. Both are found on the train. Mr Zhuang, a lorry driver for Jingdong, an e-commerce and logistics giant, is travelling with his wife to the north-western province of Shaanxi to see their university-lecturer son, about to start a PhD overseas. Mr Zhuang calls his family's own experience of China's national rise "life-changing". Asked about prospects for the post-pandemic economy, he praises Chinese leaders for treating the people "like a father would his child, they want everyone to be well-off."

Nearby, Mr Xing, a grey-haired man from the central province of Henan, dozes. He is a security guard in Guangzhou, after growing too old for building work. Overall, China's rural-to-urban migrants are ageing. In 2021 the average age of migrant workers in China hit 41.7 years, up from 34 in 2008. Increasingly, youngsters shun factory jobs far from home. Many old workers without adequate pensions toil past the legal retirement age. Mr Xing shares a prefabricated dormitory room in Guangzhou with his son and son-in-law. The son, a burly 40-year-old supervisor on a production line, had not planned new-year travel, but his children, 10 and 16, "kept calling and saying we haven't been home for a year." The eldest attended primary school in Guangzhou, but like many migrant children lacked the residency papers to attend a city high-school, so returned to Henan. The younger Mr Xing hopes to catch up with his daughter over the holiday, maybe taking her to an amusement park. But she wants to be a teacher and has a lot of schoolwork. Pondering so many years away from his children, he sighs: "I don't know how to describe that feeling."

Collective progress, individual angst

Mrs Li, a street sweeper in Guangzhou, sits on a bucket by a train door. A widow aged 56, she is six years past the retirement age for female blue-collar workers, but falls foul of China's stingy, fiddly welfare rules. Years of factory jobs did not generate a big-city pension. Her bare-bones health insurance can only be accessed in her rural home. She makes 4,000 yuan ($590) after a month of 12-hour days, with no days off. When covid quarantines halted work, she should by law have been paid, but her employer, a subcontractor, refused. Without money, "you're nobody," she says. Her son, a factory worker, lacks funds to buy the home and car needed to marry. With so much pressure, young people "don't want kids, they don't want marriages," she sighs. Her parents and in-laws have just had covid, so she hopes her arrival will not endanger them. She longs to visit because, at their age, "every new year counts." Other passengers echo her talk of life's harsh pressures. Gleaming infrastructure is impressive. Building a fair, happy society is harder. ■

Open-source intelligence

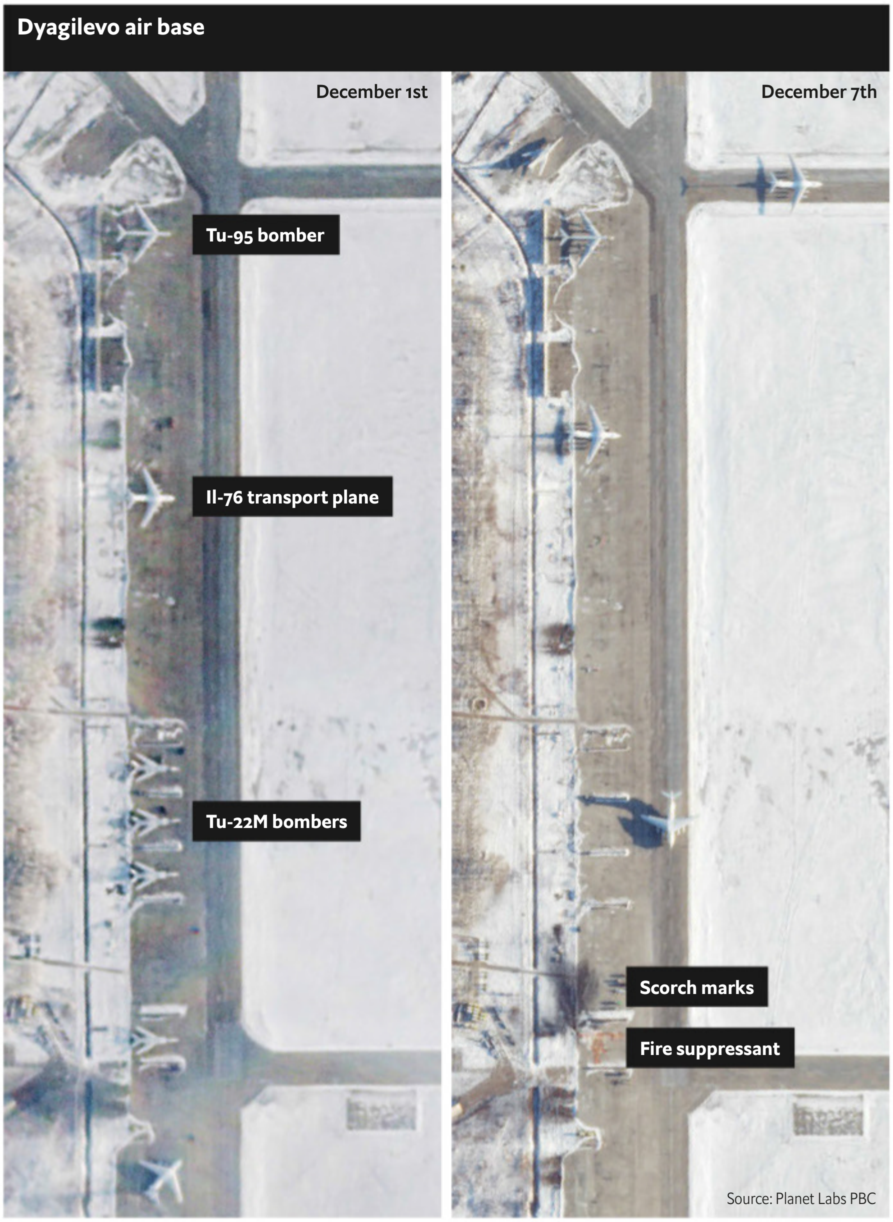
An open book

Social-media posts and satellite imagery provide a torrent of data from Ukraine. But they can also overwhelm and confuse

On May 29th 1982 Robert Fox had just witnessed 36 hours of warfare at Goose Green, a remote spot on the Falkland Islands, which was being fought over by Britain and Argentina. It was the decisive battle of the war and it had gone Britain's way. It took Mr Fox, then a BBC radio correspondent, ten hours to get to a satellite phone, he recalls. It took another eight to decrypt his text in London. The story was not broadcast for 24 hours. Television journalists had it worse, says Mr Fox. Their shots took ten days to reach home.

When the Ukrainian city of Kherson was liberated in November, it took just hours, if not minutes, for the news to flood out. Images on Telegram, a messaging service popular in Russia and Ukraine, showed Ukrainian soldiers strolling into the city centre, and Ukrainian flags lofted over buildings. A network of amateur analysts on Twitter tracked the Ukrainian advance, almost in real time, by "geo-locating" the images—comparing trees, buildings and other features to satellite imagery on Google Maps and similar services.

Dyagilevo air base



Source: Planet Labs PBC

The rise of open-source intelligence—OSINT to insiders—has transformed the way people receive news. In the run-up to war, commercial satellite imagery and video footage of Russian convoys on TikTok, a social-media site, corroborated Western claims that Russia was preparing an invasion. Jeffrey Lewis of the Middlebury Institute in California used Google Maps' road-traffic reports to identify a tell-tale jam on the Russian side of the border at 3.15am on February 24th. "Someone's on the move", he tweeted. Less than three hours later Vladimir Putin launched his war.

Satellite imagery is still useful. During the Kherson offensive, synthetic-aperture radar (SAR) satellites, which can see at night and through clouds, showed Russia building pontoon bridges over the Dnieper river before its retreat from Kherson. Boats appeared and disappeared as troops escaped east. Later, new defensive positions appeared along the river's left bank. And when Ukrainian drones struck two air bases inside Russia on December 5th, high-resolution satellite images showed the extent of the damage (see pictures).

Satellites were well-suited to cataloguing Russian battalions laid out neatly in open fields in January. But it is harder to capture images of small companies of men dispersed over a wide area and often ensconced in trenches or bunkers. The single most important repository of OSINT data during the war has instead been Telegram.

OSINT analysts scour Telegram channels such as Rybar, which has over 1m followers, to harvest images of battle and testimony from the front lines. Rybar is not neutral. Its founder once worked for Russia's defence ministry, and reportedly had links to Yevgeny Prigozhin, the head of the mercenary Wagner Group. But it offers relatively accurate and timely accounts of battlefield movements, including Ukraine's blitz through Kharkiv in September, and is often critical of Russian policy.

Telegram has become a platform for Russian ultra-nationalists, supportive of the war but dissatisfied with its conduct, to air their grievances. Popular accounts have circulated images of troops without basic equipment. During the Kherson offensive in early October, one panicked Russian account even used it to make a plea for air support. The first ten years of the Syrian civil war produced about 40 years' worth of footage, notes Matthew Ford of the Swedish Defence University. In the first 80 days of the Ukraine war, there were ten years of footage—an order of magnitude more.

▸▸

For armies seeking to maintain operational security, this profusion of data is a nightmare. In 2019 Russia passed a law banning soldiers from uploading sensitive photos or videos. It began shutting down railway-tracking websites shortly before the war began, removing a valuable source of data. It has also attempted to obscure patches on soldiers' uniforms and vehicle markings, to avoid giving away the position of whole units.

In October the Kremlin began cracking down on prominent critics on Telegram, such as Igor Girkin, an ex-spook who led Russia's proxy war in Donbas in 2014. But they remain as garrulous as ever. After at least 89 Russian servicemen—possibly hundreds—were killed by a Ukrainian attack on New Year's Day in Makiivka, a Russian-occupied town in Donbas, Mr Girkin lambasted the incompetence of Russian generals, describing them as "untrainable".

Nor has Russia stanched the flow of information. "There's a lot of lessons being learnt very slowly," says Tom Bullock, an OSINT analyst at Atreides, an intelligence company, "but I think that's on Telegram, where they know people are looking." On VKontakte (VK), the Russian equivalent of Facebook, says Mr Bullock, "it's basically just as bad as it always has been. There's so many geo-tagged pictures of their bases just floating around at all times."

This sloppiness can have lethal consequences. In December a Russian volunteer posted photos on VK of forces encamped in a country club in Sahy, an occupied part of Kherson province. His post included a geotag of the exact location. Ukrainian missiles later struck it, after which the volunteer posted yet again. This time he uploaded a video showing the extent of the destruction, in effect giving Ukraine a damage assessment from on the ground, noted Rob Lee of King's College London.

As Russia mobilises hundreds of thousands of recruits, most with little experience, this vulnerability is likely to grow. "A lot of them see posting on social media as part of their tour of duty," says Mr Bullock. He recalls tracking a Russian volunteer who was sent to Kherson province in June. The soldier obligingly posted a photograph of every village he drove through, revealing the precise route of Russian supply lines.

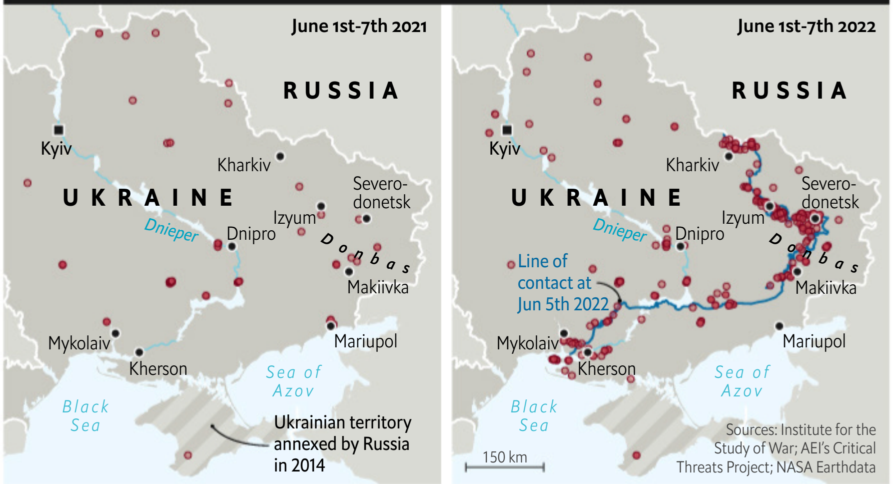
Explore further

A version of this story with video and more examples of OSINT can be found at **economist.com/UkraineIntel**

"There have been efforts to close or limit OSINT collection," says H.I. Sutton, a naval analyst who uses SAR imagery to track ships. "But OSINT evolves and people find new ways to figure stuff out." He gives the example of NASA's Fire Information for Resource Management System (FIRMS), which uses infra-red sensors on satellites to detect active fires. It was originally developed to track things like forest fires. Now it is used to identify missile launches, shellfire and explosions, allowing researchers to track the shifting positions of the front line (see map).

Open sources have their limitations. The torrent of images from Kherson emerged with unusual speed, in part because euphoric residents were keen to take and upload the footage. On one occasion, Ukrainian forces managed to target a Chechen unit near Kyiv within 40 minutes of videos being uploaded to TikTok, according to the *New York Times*. But on average it takes one to three days for an image to circulate widely and be geo-located, says Andro Mathewson, an OSINT analyst for the HALO Trust, a landmine-clearance charity. Images often arrive in bursts when a unit is rotated off the front lines and has time and connectivity to upload footage.

Active fires detected by NASA satellites



Sources: Institute for the Study of War; AEI's Critical Threats Project; NASA Earthdata

Open sources also entail a form of survivorship bias, akin to the problem, in the second world war, of drawing the wrong lessons by analysing only those planes which returned from missions rather than also those which were shot down. "The footage we see of this war is not necessarily representative of how it is being fought," says Mr Lee. Tanks hit by anti-tank missiles are more likely to be caught on video than those struck by mines, he notes. Yet a big chunk of Ukrainian tank losses are from mines, according to informed sources.

In a recent talk, General Sir Jim Hockenhull, who ran British defence intelligence until 2022, compared old-fashioned intelligence to assembling a jigsaw puzzle without the lid, showing the complete picture, or all the pieces. "What's happening with open source is that we still don't have the lid...but what we have is an almost infinite number of jigsaw pieces." The result, he said, was that one could assemble "an almost infinite number of pictures".

Putting the jigsaw together

That creates "splintered realities", says Mr Ford. He is working on an open-source history of the war, and reckons it can be done "at what might be considered US intelligence standards"—a remarkable acceleration of military history. But he says the infinite jigsaw poses serious challenges. One is self-deception: seeing the war "as we want to see it, rather than as it is". Images of hungry Russian recruits huddled in trenches paint a picture of shambolic mobilisation. In practice, Western and Ukrainian officials say they are worried about the units being formed out of sight.

The other problem is seeing what belligerents want you to see. Early in the war, videos showed strike after strike by Ukrainian drones, many set to catchy music. "Ukraine recognised very quickly...that this was some of the best footage they had," noted Justin Bronk of the Royal United Services Institute, a think-tank, on a recent podcast. "And so the Ukrainians stored up a lot of that footage and kept drip-feeding it, having got rid of date, time and location stamps to give the impression this was still a major thing a couple of months in."

Despite those limitations, Western intelligence agencies are taking a keen interest in OSINT. Satellite imagery is old hat. America has had it for more than 60 years, though never quite so much. But a world in which Telegram channels convey battlefield imagery is new and unsettling. "Open source contributes somewhere in the region of 20% of our current processes," says General Hockenhull, "but the availability and opportunity means that we've got to invert this metric." In other words, rather than sprinkling OSINT over existing secret intelligence, the secrets should be the icing on an open-source cake. ■

Young consumers

Buying time

They are woke, broke and complicated. Businesses should take note

YOUNG PEOPLE have always perplexed their elders. Today's youngsters are no different; indeed, they are baffling. They have thin wallets and expensive tastes. They prize convenience and a social conscience. They want shopping to be at once seamless and personal. They crave authenticity while being constantly immersed in an ersatz digital world. As they start spending in earnest, brands are trying to understand what these walking paradoxes want and how they shop. The answers will define the next era of consumerism.

Their absolute numbers are formidable. The European Union is home to nearly 125m people between the ages of ten (the youngest will become consumers in the next few years) and 34. America has another 110m of these Gen Zs and millennials, a third of the population. The annual spending of households headed by American Gen Zs and millennials hit $2.7trn in 2021, around 30% of the total.

A good place to start dissecting the psyche of young consumer is to consider the economy that has moulded them. At one end of the scale, today's 30-somethings came of age in the midst of the global financial crisis of 2007-09 and the ensuing recession. Their younger peers had a bit more luck, beginning their careers in years when tightening labour markets had pushed up wages. Until, that is, the covid-19 pandemic upended many of their lives.

These two big shocks have fostered pessimism among the young people who experienced them. A study by McKinsey, a consultancy, published in 2022, found that a quarter of Gen Zs doubted they would be able to afford to retire. Less than half believed they would ever own a home.

Uncertainty about the future may be encouraging impulsive spending of limited resources in the present. The young were disrupted more by covid than other generations and are now enjoying the rebound. According to McKinsey, American millennials (born between 1980 and the late 1990s) spent 17% more in the year to March 2022 than they did in the year before. Despite this short-term recovery from the dark days of the pandemic, their long-term prospects are much less good. American millennials and Gen Zs have accumulated less wealth than Gen X or Boomers at the same age.

Easy access to means of spreading payments may encourage splashing out (see chart 1 on next page). According to another survey by McKinsey in October, 45% of Europeans in their teens and early 20s planned some kind of splurge in the next three months whereas 83% of Boomers, born before 1964, said "No" to such profligacy. Forrester, a market-research firm, found that most users of "buy now, pay later" apps are around 20. Megan Scott, a 20-year-old student from London, speaks for many of her peers by admitting that, when shopping, she has no restraint—until, she chuckles, the bill arrives.

In many ways youngsters' shopping habits, like their lives, are defined by the "attention economy"—buying stuff online ▸▸

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is far quicker and easier than a trip to the shops. The proliferation of social media means there are many new ways of attracting consumers' eyeballs. Young shoppers never knew a world without smartphones. More than two-thirds of 18- to 34-year-old Americans spend four hours or more on their devices each day. A heightened expectation of convenience comes with being raised in the age of Airbnb, Amazon and Uber. Young people want their shopping to be totally hiccup-free.

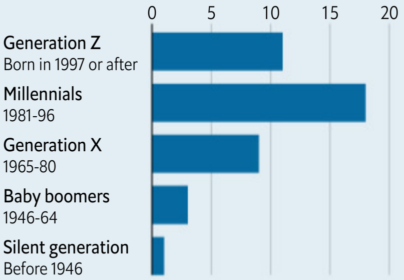
The light-speed online world also appears to have lowered tolerances for long delivery times. A study by Salesforce, a business-software giant, found that Gen-z Americans are the likeliest of all age groups to want their groceries delivered within an hour. They are more likely than the rest of the population to use their phones to pay for shopping, says Forrester.

These "always-on purchasers", as McKinsey has christened them, often shun a weekly shop for quicker fixes of everything from fashion to furniture. They like subscriptions, often favouring shared access to products rather than outright ownership. This has buoyed online-rental sites (like Rent the Runway for fashion) and streaming services. Investors may have fallen out of love with Netflix but Gen Z has not; the company remains one of the most popular brands among that age group in America.

The internet has also changed how the young discover brands (see chart 2). Print, billboard or TV advertising has given way to social media. Instagram, part of Meta's empire, and TikTok, a Chinese-owned video-sharing app, are where the young look for inspiration, particularly for goods where looks matter such as fashion, beauty and sportswear. TikTok's user-generated videos can propel even tiny brands to speedy viral fame. Such apps are increasingly adding features that allow users to shop without ever leaving the platform. According to McKinsey, by 2021 six in ten Americans under the age of 25 had completed a purchase on a social-media site. Some are following the Chinese model of "social commerce" by mixing live-streamed entertainment with the chance shop.

Spreading the load 1

United States, share of respondents* who have used "buy now, pay later"† in the past three months, by generation, 2021, %



*Between 2,767 and 23,003 online adults
†Affirm, Afterpay, Klarna or Pay in 4
Source: Forrester Research

For the time being, though, young Western consumers prefer to make purchases outside social media, and often scour sites like Amazon for bargains. According to Cowen, an investment bank, spending on subscriptions to Prime, Amazon's home-delivery and entertainment service, trails only phone bills, food and travel in young people's shopping baskets.

Physical shops are not entirely shunned, as long as the experience feels personal and, ideally, integrates virtual and physical worlds. Nike, for example, is successfully targeting young buyers by allowing them to design their own trainers on its website, to pick up in person after attending an in-store dance class, and then encouraging them to tag the brand in a review on TikTok or Instagram.

The new world of shopping has also allowed the young to take a more informed view of the companies that they buy from. The attention economy's information overload has not dulled youngsters' senses but appears to have made them hypersensitive, especially to any brand that pretends to be something it isn't. Edelman, a public-relations firm, found that seven in ten Gen Zs across six countries fact-check claims made in adverts. Citing survey data that show some teens have shunned certain brands because of their shady ethics, Forrester has taken to calling young consumers "truth barometers".

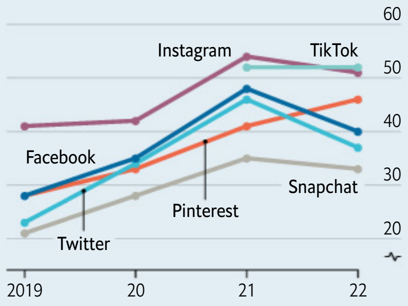
Brands that do not match up to the long list of requirements had better watch out. If they do not get what they want and how they want it, youngsters are happy to try something new. According to the survey by McKinsey from October 2022, nine in ten Gen Z and millennial Europeans had changed how they shopped, where they shopped or the brands they bought in the previous three months.

How the young shop is clearly in flux. What they buy, too, is changing. What older generations consider discretionary, such as wellness and luxury, have become essentials. Self-care is all the rage. On the hunt for clothing that will set them apart, the young are turning to posh brands at an ever more tender age. According to Bain, a consultancy, the average Gen Z shopper makes their first luxury purchase when they are 15, compared with 19 for their 30-something counterparts. Some buy posh items as a hedge, believing that they can hold value even during tough times. Helpfully, such items can now be traded easily on second-hand sales platforms such as Vinted and Vestiaire Collective.

More broadly, young consumers profess to be more values-driven than previous generations. Research by Forrester shows that this attitude is even more common among teenagers and 20-somethings than among slightly older counterparts. Some of these values are centred around identity (race, gender and so on). Others stem from things the young care about, such as climate change. KPMG, an accounting firm, found that the Gen Z crowd across 16 countries worries more about climate change and natural disasters than any other generation. According to a survey by Credit Suisse, a bank, youngsters in emerging markets are more fretful still.

Marketing by post 2

United States, share of respondents* who have purchased from a brand they recently discovered on social media, %



Source: Cowen *Aged 18-24

Revealed preferences paint a more nuanced picture. On the one hand, Forrester has identified Patagonia, a premium outdoor-clothing brand with a record of green do-goodery, as a Gen Z favourite in the rich world. The young are the most likely of all age groups to try—and stick with—alternative proteins such as oat milk and plant-based meat alternatives. But not at any price. Credit Suisse found that on average, consumers globally will pay an average premium of 9% for more environmentally friendly grub. Young consumers in the rich world are less willing to pay premiums for these alternatives than their counterparts in emerging markets.

Youngsters' appetite for instant gratification is also fuelling some distinctly ungreen consumer habits. The young have virtually invented quick commerce, observes Isabelle Allen of KPMG. And that convenience is affordable because it fails to price in all its externalities. The environmental benefits of eating plants rather than meat can be quickly undone if meals are delivered in small batches by a courier on a petrol-powered motorbike. Shein, a Chinese clothes retailer that is the fastest in fast fashion, tops surveys as a Gen Z favourite in the West, despite being criticised for waste; its fashionable garments are cheap enough to throw on once and then throw away. Like everyone else the young are, then, contradictory—because, like everyone else, they are only human. ■

Carmaking in Mexico

Going electric

MEXICO CITY

Can the country make the most of the industry's switch to battery power?

JOB ADVERTS hint at its imminent arrival but Tesla is yet to confirm recent reports that it will set up a new electric vehicle (EV) "gigafactory" in Monterrey, a Mexican city close to the American frontier. The rumours have nonetheless set wheels in motion. Noah Itech, a Chinese supplier of automation equipment to the American car company, is building a $100m plant in the city. If Elon Musk's firm sets up in Mexico it will be the latest in a long list of companies that have chosen to build vehicles in a country that borders the world's second-largest car market.

General Motors (GM) and Ford, along with Japan's Toyota and Nissan, have long made cars for export in the country, and more so since Mexico signed a free-trade deal with America and Canada in 1993. By 2021 that had made Mexico the world's seventh-largest carmaker. But as the industry shifts from combustion engines to battery power, will Mexico maintain its allure?

America has been tardy in its take-up of electric motoring compared with China and Europe, but demand for EVs is now growing fast, providing a ready market for Mexican-made cars. Many of Mexico's advantages hold for EVs as much as for internal combustion, such as a skilled labour force that is far cheaper than across the border. "Mexico was the first plant outside Japan for us; there is an extraordinary quality of factories," says Claudia Rodríguez of Nissan Mexico.

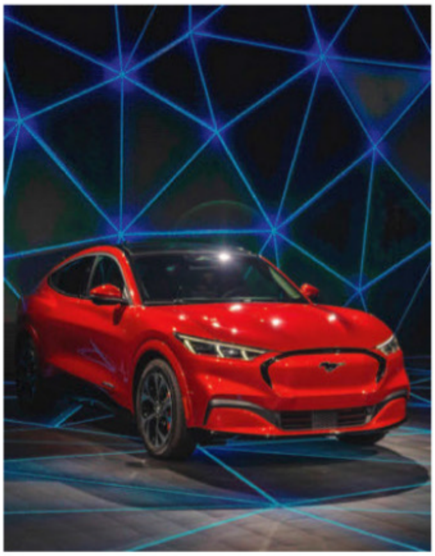
Some firms are converting factories and at least eight plants are already assembling EVs in Mexico. One in the State of Mexico, where Ford makes its Mustang Mach-E (see picture), will triple its production of EVs to 210,000 units. GM is spending $1bn to reconfigure a plant in Coahuila, close to the border with Texas, where it will make the new model of Chevrolet Blazer from 2024. It plans to convert its other two plants to EV production by 2035. Bombardier Recreational Products announced in October last year that it would build a new factory in Querétaro to manufacture electric motorcycles and batteries for EVs. Nidec, a Japanese company, plans to invest around $715m in a factory to make motors for battery-powered vehicles.

Other factors may push carmakers to make even more vehicles and components in Mexico than they do now, says José Zozaya, who heads the Mexican Automotive Industry Association, a trade body. Supply-chain snarl-ups during the pandemic, and geopolitical tensions between China and America, have made companies think twice about relying on China for parts and production. And carmakers have always liked the flexibility and efficiency that come with sourcing parts and making vehicles close to their final destination.

Mexico also has huge deposits of the lithium required to make EV batteries. President Joe Biden's Inflation Reduction Act (IRA) specifies that eventually only battery-powered vehicles made with raw materials sourced and processed in America or countries with which it has a free-trade agreement, such as Mexico, will be eligible for subsidies. But new mines take years to come on stream, and nationalisation could add further delays.

Car firms would probably invest even more were it not for bumps in the road. Mexico's goal is to have EVs make up half of all vehicles produced by 2030. GM's boss in Mexico has said that 15% is more realistic. That is because incentives are lacking. When Tesla set up a "gigafactory" in Nevada in 2014 it came with a $1.3bn sweetener from the state in the form of tax credits. The IRA also sets aside $2bn to help convert American factories to EV production.

The whimsical approach to policymaking of Andrés Manuel López Obrador, Mexico's president, is another red traffic-light. Executives fret about the government prioritising power generation by national companies, which mostly use oil and gas and are more expensive than private-sector producers. If energy costs rise and supplies become uncertain, manufacturers say they may no longer find Mexico a competitive place to make things. Several months after GM announced the factory conversion in April 2021, it said it would not invest further in Mexico if its laws do not encourage clean energy. ■



Made in USMCA

China's tech crackdown

Foot off the throat

SHANGHAI

Big tech can start to breathe more easily at last

CHINA'S CLAMPDOWN on its best and brightest tech companies came quickly in late 2020. Two years later authorities in Beijing are swerving rapidly back towards more predictable policymaking. On January 16th DiDi Global, a ride-hailing firm, said it would soon be allowed to resume taking on new customers after an 18-month pause during which regulators banned it from growing. A week earlier Ant Group, China's payments and fintech giant, revealed that Jack Ma, the country's most prominent entrepreneur, no longer held controlling rights in the company which he co-founded. Mr Ma's ceding of control was rumoured to be one of the final steps toward political approval of the company. Shortly afterwards a senior Chinese technocrat said the tech crackdown was drawing to a close.

DiDi and Ant have been bellwethers for big tech in China. DiDi's trouncing of Uber, which ended in the Chinese firm buying its rival's operations in the country in 2016, showed that local groups could compete with global ones. Ant's eye-watering valuation of $300bn in 2020 suggested that China would produce the world's next generation of dazzling consumer-internet champions. But the state's suspension of Ant's record-breaking initial public offering later that year, followed by a damaging probe into DiDi just days after its flotation in New York in June 2021, made it clear that all was not well in the world of Chinese tech.

The "rectification", as the authorities dubbed it, demonstrated the extent to which regulators were willing to exert control over large technology platforms. DiDi was eventually forced by Chinese regulators to delist in New York—an unprecedented move by authorities in Beijing. A relisting in Hong Kong was also blocked. Jack Ma, once an outspoken critic of bad regulation, has kept out of the public eye. Investors reacted to the tech purge with panic. Over the past two years, Beijing's heavy hand wiped out at least $2trn from global markets.

The end of the techlash is part of a concerted effort to revive confidence in Chi-

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na's leadership, including that of Xi Jinping. Securities regulators have made concessions in recent months by allowing America's accounting watchdog to review the internal books of American-listed Chinese firms, avoiding the delisting of some $900bn-worth of shares traded in New York. Since November China has rapidly shifted away from its zero-covid policy, a costly but failed effort to suppress the pandemic within its borders. In the past two weeks leaders have also drastically loosened restrictions on financing for property developers after an attempt to rein in leverage pushed the industry towards collapse.

But the new era for tech will be vastly different from the previous one, which was defined by rapid growth and unbridled expansion. Many companies have been selling businesses they bought in recent years. Entire internet-enabled industries, such as online education, have been destroyed and will not be coming back.

State control is set to increase in the coming years. Many firms have already sold small stakes to government investors. These "golden shares" often require the state to buy only 1% of a company and yet confer the right to appoint board members and veto important decisions. Shares in important subsidiaries of ByteDance, the owner of TikTok, and Weibo, a Twitter-like platform, are already held by a state investor linked to China's cyberspace regulator. A similar arrangement has recently been made with Alibaba, an e-commerce giant, and there are rumours that the same fate might befall Tencent. Investors can expect DiDi to take on government-linked investors before it is fully rehabilitated, says Cherry Leung of Bernstein, a broker. The new normal will be a strange new place. ■

Bartleby Faulty reasoning

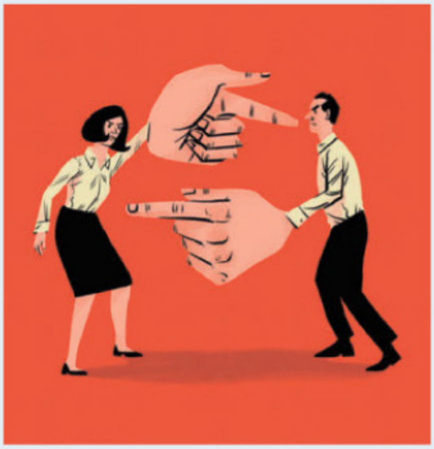
Why pointing fingers is unhelpful, and why bosses do it more than anyone

CASTING BLAME is natural: it is tempting to fault someone else for a snafu rather than taking responsibility yourself. But blame is also corrosive. Pointing fingers saps team cohesion. It makes it less likely that people will own up to mistakes, and thus less likely that organisations can learn from them. Research published in 2015 suggests that a Shaggy culture ("It wasn't me") shows up in share prices. Firms whose managers pointed to external factors to explain their failings underperformed companies that blamed themselves.

Some industries have long recognised the drawbacks of fault-finding. The proud record of aviation in reducing accidents partly reflects no-blame processes for investigating crashes and close calls. The National Transportation Safety Board, which investigates accidents in America, is explicit that its role is not to assign blame or liability but to find out what went wrong and to issue recommendations to avoid a repeat.

There are similar lessons from health care. When things go wrong in medical settings, the systems by which patients are compensated vary between countries. Some, like Britain, depend on a process of litigation in which fault must be found. Others, like Sweden, do not require blame to be allocated and compensate patients if the harm suffered is deemed "avoidable". A report published by a British parliamentary committee last year strongly recommended moving away from a system based on proving clinical negligence: "It is grossly expensive, adversarial and promotes individual blame instead of collective learning."

The incentives to learn from errors are particularly strong in aviation and health care, where safety is paramount and lives are at risk. But they also exist when the stakes are lower. That is why software engineers and developers routinely conduct "blameless postmortems" to investigate, say, what went wrong if a website crashes or a server goes down.



There is an obvious worry about embracing blamelessness. What if the wretched website keeps crashing and the same person is at fault? Sometimes, after all, blame is deserved. The idea of the "just culture", a framework developed in the 1990s by James Reason, a psychologist, addresses the concern that the incompetent and the malevolent will be let off the hook. The line that Britain's aviation regulator draws between honest errors and the other sort is a good starting-point. It promises a culture in which people "are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training". That narrows room for blame but does not remove it entirely.

There are two bigger problems with trying to move away from the tendency to blame. The first is that it requires a lot of effort. Blame is cheap and fast: "It was Nigel" takes one second to say and has the ring of truth. Documenting mistakes and making sure processes change as a result require much more structure. Blameless postmortems have long been part of the culture at Google, for instance, which has templates, reviews and discussion groups for them.

The second problem is the boss. People with power are particularly prone to point fingers. A recent paper by academics at the University of California, San Diego, and Nanyang Technological University in Singapore found that people who are in positions of authority are more likely to assume that others have choices and to blame them for failures.

In one experiment, for example, people were randomly assigned the roles of supervisor and worker, and shown a transcript of an audio recording that contained errors; they were also shown an apology from the transcriber, saying that an unstable internet connection had meant they could not complete the task properly. The person in the supervisor role was much more likely to agree that the transcriber was to blame for the errors and to want to withhold payment. Power and punitiveness went together.

Blame also seems to be contagious. In a paper from 2009, researchers asked volunteers to read news articles about a political failure and then to write about a failure of their own. Participants who read that the politician blamed special interests for the screw-up were more likely to pin their own failures on others; those who read that the politician accepted responsibility were more likely to shoulder the blame for their shortfall. Bosses are the most visible people in a firm; when they point fingers, others will, too. If your company has a blame culture, the fault lies there. ■

Indian startups

Growing pains

BANGALORE

Investors lose faith in India’s unicorns

“HOW LONG is your runway before takeoff?” That is how venture capitalists (VCs) begin meetings in India these days, says Ananth Narayanan, founder of Mensa, one of the country’s newest unicorns (companies worth in excess of $1bn). Until recently the main question that mattered for India’s startup scene was valuation. But the mood has changed. Plunging share prices at companies that have gone public have made VC firms much warier about investing. Prizing unrealistic valuations has given way to worrying about how quickly startups might begin to make money. So far Mensa, which buys stakes in digital brands, is one of a handful of such firms that makes a profit.

That leaves plenty that do not. Since the beginning of 2021, the number of unicorns created in India has risen from 40 to 108. Only America and China have produced more. In 2021 promising startups had no trouble finding investors eager to fund fast-growing firms with big ideas. That year investment in startups tripled to $35bn. The momentum continued in 2022, with $3.7bn invested in March alone. Such was the clamour that startups had their pick of “founder friendly” investors who were not too bothered about supervision, the drudgery of background checks and other intrusive oversight.

The environment has since cooled. Investment in December was only $900m. One reason is the woeful performance of firms that went public in 2021: Zomato (food delivery), Freshworks (enterprise software), Paytm (payments), Policy Bazaar (insurance) and Nykaa (fashion). The share prices of each has tumbled in excess of 59%. And while a global rout in tech valuations has coincided with a broader sell-off, that is not true of India. The Sensex, an index of the country’s biggest 30 firms, is close to an all-time high and the economy is growing at a decent clip.

The poor performance means that other planned listings, such as that of PharmEasy, an online pharmacy, will not now go ahead. Acquisitions have been similarly hit. In October the $4.7bn purchase of BillDesk by PayU, both profitable payments companies, was cancelled. PayU’s owner Prosus, a local VC firm affiliated to Naspers, a Dutch-South African company, is widely believed to have walked away because the fall in Paytm’s share price created a new, and far lower, benchmark for what a payments company is worth.

Re-evaluating what startups might be worth is now the foremost concern of all India’s VC firms. Funding hinges on assessing reserves, costs and the time needed to become profitable. In theory, this sort of information is available for all Indian firms because they are required to file public financial statements. But the system operates poorly. Of the 40 startups that have filed results for 2022 only three are profitable, according to Tracxn, a statistical service, and based on their annual spending, only five have enough cash to survive for over six months (see charts).

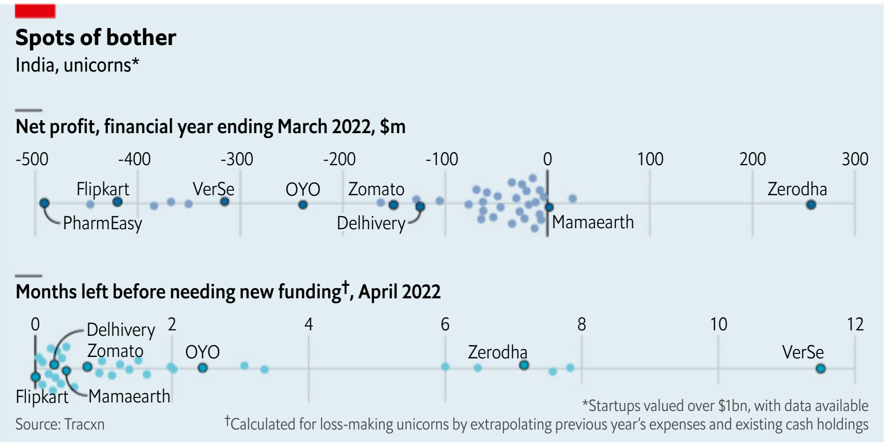
In response to the tougher environment, costs are being cut. Inc42, an online publication tracking startups, counts 20,500 layoffs over the past year, probably foreshadowing a much bigger wave. Edtech has been especially hard hit, with 16 companies axing over 8,000 employees, the most coming at Byju, India’s most valuable startup, which is sacking 2,500 employees. A post-lockdown return to classrooms and low barriers to creating educational material online has raised doubts about the entire sector’s prospects.

Byju has other problems. It was accused in July of inappropriately aggressive accounting and sales policies, which it denies. Other startups have also come under fire. BharatPe (payments), Trell (social media) and Zilingo (supply-chain management) saw founders quit last year after fraud accusations. BharatPe’s founder denies the allegations as does Trell; Zilingo is investigating the claims. On January 18th Amit Bhasin, a co-founder of GoMechanic, a car-repair firm, admitted to “errors in judgment as we followed growth at all costs, particularly in regard to financial reporting, which we deeply regret” after it cut 70% of its workers.

These tribulations have brought the role of backers into question. Were firms sufficiently monitored? Were valuations credible? Sequoia Capital, a prominent Silicon Valley firm, has invested in GoMechanic, BahratPe, Trell, Zilingo and several edtech companies. It acknowledged in April the governance issues in various holdings and vowed to provide stricter oversight but has declined to comment further. Other foreign VC firms are rethinking how they approach India, too. A more diligent approach may be required.

How companies come to market is also set to change in response to the losses from public offerings. India’s stockmarket regulator made changes in September that will enable far greater scrutiny. It will force firms to provide information on the prices of private transactions that occurred before listings, as well as the key data used to derive valuations. Large investors will also be required to hold at least half of their shares through at least one accounting period to stop them selling shares during a spell of hype after an offering.

These changes may not head off the carnage to come. Anand Lunia of India Quotient, a VC firm in Bangalore, believes a quarter to half of the current unicorns will become zombie firms that will exist in name but cease to be funded or operate. His willingness to speak openly is unusual; his views are not. Yet for all the concerns about the immediate future, neither Mr Lunia nor many others who think sharp devaluations are coming are pessimistic about the long-term for startups. The economy is growing strongly and India is good at nurturing entrepreneurial software engineers whose skills increasingly apply in every industry. All of this suggests that the storm ahead will be followed by a resumption of growth, eventually. ■



Spots of bother

India, unicorns*

Net profit, financial year ending March 2022, $m

Months left before needing new funding†, April 2022

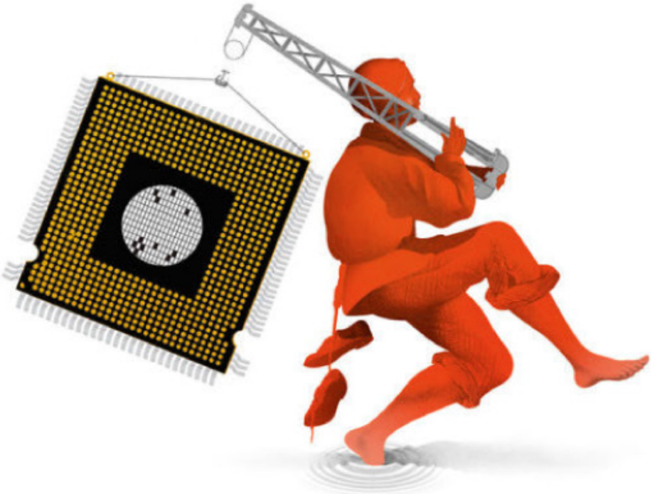
Source: Tracxn

*Startups valued over $1bn, with data available

†Calculated for loss-making unicorns by extrapolating previous year’s expenses and existing cash holdings

Schumpeter | Speak softly, and carry a big chip

TSMC, Taiwan's semiconductor superstar, is making the best of a bad geopolitical situation



For a company worth $430bn that straddles one of the world's most dangerous geopolitical flashpoints, there is something endearingly unflustered about Taiwan Semiconductor Manufacturing Company (TSMC). Both America and China covet its unmatched ability to make advanced chips. It's a far bigger supplier to the former than the latter, but if either superpower, through economic pressure or brute force, fully stifled its independence, the fallout would be immense. Many of its fabrication plants are on the west coast of Taiwan and perilously exposed to a Chinese invasion across the Taiwan Strait. Yet it refuses to be panicked. "If there is a war then, my goodness, we all have a lot more than just chips to worry about," its 91-year-old founder, Morris Chang, said in a podcast last year. His successor as chairman, Mark Liu, insists that peace is in everyone's interest.

Such insouciance runs the risk of sounding naive. Like it or not, the big-power rivalry over semiconductors—what some call the Silicon Curtain—has solidified in recent months. China has long sought, to little avail, to build a chip industry from scratch. Last year America strengthened its stranglehold on certain "choke-point" technologies, such as artificial-intelligence chip design, chip software and semiconductor-manufacturing equipment, in order to stymie China's ambitions. Moreover, America's CHIPS Act, enacted last year, has used subsidies to entice about $200bn in investment commitments. One of the biggest beneficiaries has been Intel, a rival as well as client of TSMC.

In response, TSMC appears as if it has joined Uncle Sam. Last month President Joe Biden stood in front of the firm's vast new American fab under construction in Phoenix, Arizona, and celebrated a proposed $40bn investment. Yet look closer and TSMC offers lessons on how to handle the dirty business of geopolitics. Contrary to what some people think, the new cold war is not forcing it to break away from Taiwan, where it has foundry capacity for making more than three-quarters of the world's high-end chips. It is unlikely to jeopardise its profitability, which generates the cashflows necessary to retain its edge. Yet it is thinking about a long-term future in which one day there may be a premium on geographical flexibility. In short, it is playing a subtle game of diplomacy in which its business interests come first.

The fab in Phoenix is exhibit A for those who fear "de-Taiwanisation". Spread out over miles of desert, it is pharaonic in size. It is due to start making four-nanometre chips next year, which, provided it beats Intel to the punch, will be the most advanced ever made in America. A big part of the $40bn investment, TSMC says, will be a second fab that will start to make even more sophisticated chips in 2026. Its biggest customer in Phoenix will be Apple. Beyond America, it plans to build its first fab in Japan for Sony, another gadget-maker. This looks like a strategy to move closer to its customers, which if you are sitting in Taiwan might look suspiciously like abandonment.

"Complete nonsense," retorts Pierre Ferragu of New Street Research, a financial firm. TSMC has almost simultaneously launched a new fab in Taiwan, with four times the wafer capacity—and more advanced technology—than the two proposed Arizona foundries. Its bet on America is more of a long-term insurance policy than an immediate game-changer. It enables TSMC to start the tough job of recruiting a workforce and amassing suppliers in America, providing a baseline for expansion "if the Chinese are crazy enough to bomb Taiwan". For the foreseeable future, though, most R&D is likely to remain in Taiwan. So will at least four-fifths of TMSC's capacity.

Next comes profitability. The fears are two-fold. First, for all the subsidies offered by America, manufacturing there is cripplingly expensive, and the concern has been that TSMC will bear the losses as a gesture of goodwill to the country. Second, the subsidies could support the revival of Intel, which long ago lost its lead in chipmaking to TSMC but has since banged the drum for chip nationalism. In fourth-quarter results on January 12th, TSMC laid some of those fears to rest. Though construction costs in the United States are, officials said, up to five times higher than in Taiwan, they indicated that customers who wanted their chips to be made in America would pay a higher price, protecting profits. Moreover, despite a cyclical downswing in the global chip market, TSMC is boosting market share vis-à-vis rivals such as Intel. As Malcolm Penn, an industry consultant, puts it, it is so far out on the leading edge of chip manufacture that its most advanced products will always be in short supply.

In some ways, TSMC is deftly cosying up to the Biden administration. The Arizona fabs may not solve America's chip-security problem. But at the very least they will provide some of the good (ie, unionised) manufacturing jobs so beloved of the president. In other ways, the company is building a long-term hedge into its own future. It believes high-end chips will become increasingly complex and costly to manufacture, and the digitisation of the world economy will increase the intensity of their use. In that case, eventually TSMC may outgrow Taiwan, whose population is shrinking. Accessing more global brainpower, in America or elsewhere, will become an imperative.

Silicon Curtain call

Will its offshore investments contribute to the oversupply that is currently weighing on the global chip market? No, says Mr Penn. Chip demand increases by 8% a year on average. Provided investments can be adjusted for the state of the market, it makes sense to plan for the future. What matters more is the extent to which America and its allies blacklist China, where TSMC has a fab in Nanjing making mainstream chips for domestic use. The company may be right to believe that cool heads will prevail. But if it is wrong, at least it has started the long process of hedging its bets. ■

Post-covid problems

The health-care collapse

Across the rich world, now is an especially bad time to suffer a heart attack

The imposition of lockdowns during the covid-19 pandemic had one overarching aim: to prevent hospitals from being overwhelmed. Governments hoped to space out infections, buying time to build capacity. In the end, however, much of this extra capacity went unused. England's seven "Nightingale" hospitals closed having received only a few patients, as did many of America's field hospitals. A study of Europe's experience in *Health Policy*, a journal, found only one example where there were more covid patients than intensive-care beds: in the Italian region of Lombardy on April 3rd 2020. Although there are now stories of overwhelmed Chinese hospitals, as the country confronts a great exit wave, it is too soon to know whether these are isolated examples or represent broader, systematic failure.

Outside China, covid weighs less heavily on people's minds these days. Yet health-care systems in much of the rich world are closer to collapse than at any point since the disease started to spread. Unlike for unemployment or GDP, there are few comparable, up-to-date figures on health-care performance across countries. So *The Economist* has trawled statistics produced by countries, regions and even individual hospitals to paint a picture of what is going on. The results suggest patients, doctors and nurses are experiencing the brutal after-effects of the pandemic.

Start with Britain, which produces high-quality data. The National Health Service (NHS), the country's state-run provider, is in dire straits. Just before the pandemic struck, someone with a medical issue requiring urgent but not immediate attention, a category that includes those suffering strokes and heart attacks, waited on average 20 minutes for an ambulance. Now they wait longer than an hour and a half (see chart on next page). The number of lengthy "trolley waits"—the time between a decision to admit a patient and arriving at a hospital ward—has jumped.

Other countries have less comprehensive statistics, but equally miserable populations. In September Ipsos, a pollster, released a global survey that included a question on the quality of local health care. In almost all of the 20-odd rich countries surveyed, people were less likely than in 2021 to say that the service on offer to them was "good" or "very good". In Britain the share saying so fell by five percentage points. In Canada it fell by ten, in Italy by 12.

Italian hospitals inundated by covid patients in early 2020 are struggling once again. We analysed data from the Pope John XXIII hospital in Bergamo, site of some of the harrowing images of people on ventilators nearly three years ago. In the year covid hit Italy, the hospital's waiting lists rose slightly on some measures. They then fell slightly the next year. But in 2022 they jumped. Someone in the city looking for a non-urgent breast ultrasound may ▸▸

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70 Free exchange: Europe's inflation woes

have to wait as long as two years. Officials in Emilia-Romagna, another region hit hard in 2020, have launched a plan to return waiting lists to pre-pandemic levels.

Newspapers across the Anglosphere are filled with horror stories. In New South Wales, Australia, a quarter of patients had to wait more than half an hour to be transferred from paramedics to emergency-room staff in the third quarter of 2022, up from a tenth two years before. In Canada waiting times have reached an all-time high, with a median delay of half a year between referral and treatment.

Even the richest, most competent systems are feeling the strain. In Switzerland there are fewer free intensive-care beds than at most points in the pandemic. Germany is seeing similar problems, with a surge in patients reducing intensive-care capacity (see chart). In Singapore patients waited for about nine hours to be seen in the average polyclinic at the end of 2021. By October 2022 they were waiting for 13.

America is doing better than most countries, thanks to the vast amount of money it spends on health care and the excess capacity this funds. But it is not doing well. Average hospital-occupancy rates recently exceeded 80% for the first time. Even in the darkest days of the pandemic few states reported paediatric wards under stress (which we define as 90% or more beds being occupied). In early November fully 17 states were in this position, the result of a rise in all sorts of bugs in kids.

Every kind of sickness and disaster

The collapse in the quality of health care is contributing to an astonishing rise in "excess deaths"—those above what would be expected in a normal year. In many rich-world countries 2022 proved deadlier even than 2021, a year of several big waves of covid. Monthly deaths across Europe are currently about 10% higher than expected. Germany is in the middle of a vast mortality wave: weekly deaths have been more than 10% above normal since September. In early December they were 23% higher.

What is going on? Politicians, at both a national and regional level, are taking the blame—and occasionally deserve it. But the forces creating the chaos are common across countries, and are linked to a shared experience of the pandemic. They may also, in the short term at least, be almost impossible for governments to overcome.

In the OECD club of mostly rich countries, health expenditure is now not far short of 10% of GDP, having been below 9% before the pandemic (see chart). Of the 20 countries for which there are data for 2021, 18 spent more per person than ever before. Almost all spent more as a share of GDP than in 2019. Even adjusting the figures for ageing populations does not meaningfully change these findings.

Thus the immediate problems facing health-care systems are not caused by a lack of cash. Much of the increased spending has gone on programmes to combat covid, including testing and tracing, and vaccines. But funding is now rising across systems more broadly. In almost every rich country more people are working in health care than ever before. Total employment in hospitals in 2021 was 9% higher than in the year before the pandemic in the six OECD countries we surveyed. The latest data suggest that in Canada 1.6m people now work in health care, the most ever. In the EU more than 12m people work in "human-health activities", a record. American hospitals employ 5.3m people, another record.

Perhaps the real problem is not staff numbers, but how efficiently they are working. Real output in America's hospital and ambulatory-health-care sector, which in effect measures the quantity of care provided, is only 3.9% above its pre-pandemic level, whereas output across the economy as a whole is 6.4% higher. In England elective-care activity (ie, surgery planned in advance) is slightly lower than it was before the pandemic struck. In Western Australia the share of delayed elective surgeries jumped from 11% to 24% in the two years to November. Put simply, hospitals are doing less with more.

Although falling productivity growth is an economywide phenomenon, health care currently suffers from additional pressures. A recent paper by Diane Coyle of Cambridge University and colleagues, looking at Britain, considers the effects of dealing with covid. "Donning and doffing" protocols to replace protective kit, and cleaning requirements after dealing with covid patients, both of which are still in force in many countries today, slow everything down. The segregation of covid from non-covid patients limits bed allocation.

Meanwhile, staff feel wretched after three gruelling years. A report in *Mayo Clinic Proceedings*, a journal, finds that quantitative measures of "burnout" among American physicians have shot up (see chart on next page). If health-care workers are exhausted, they may do fewer of the things that kept the show on the road, such as staying late to make sure the patients' register is in order or helping with the treatment of another medic's patient.

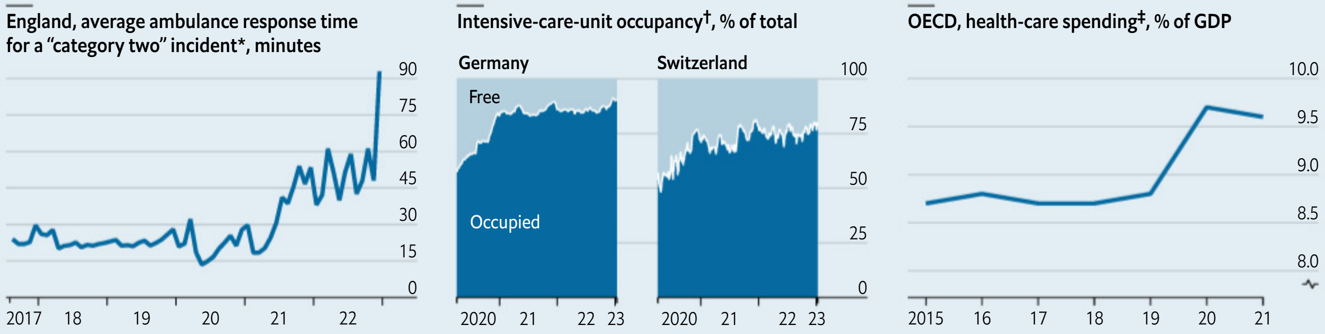
Many among you are weak

Productivity has fallen—but it has not plummeted in the manner that would be needed to explain the chaos. This suggests the true explanation for the breakdown lies elsewhere: in exploding demand.

Coming out of lockdowns, people seem to require more help than ever before. Some of this is to do with immunity. People went two years without being exposed to bugs. Since then, endemic pathogens such as respiratory syncytial virus have bloomed. Everyone you know has the flu.

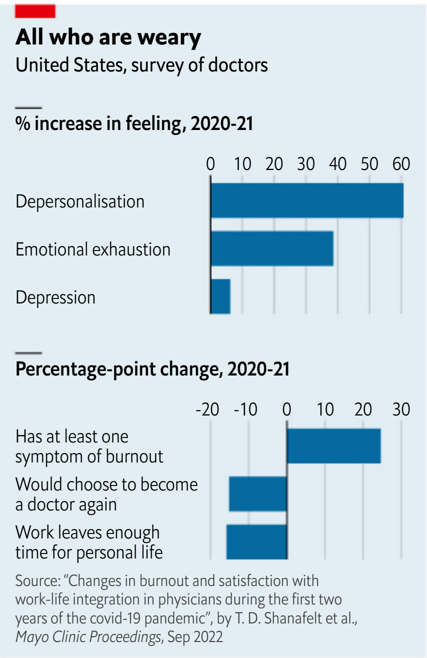
But the pandemic also bottled up other conditions, which are only now being diagnosed. In 2020-21 many people delayed seeking treatment for fear of catching covid, or because their local hospital was shut to non-covid conditions. In Italy cancer diagnoses fell by about 40% in 2020 compared with 2018-19. A study of American patients noted a particular reduction in diagnoses was recorded, over a similar period, in cancers normally found during a screening or routine examination. ▸▸

Is there no physician there?



Sources: NHS; Federal Office of Public Health; Robert Koch Institute; DIVI; OECD

*A serious condition such as stroke or chest pain †Seven-day moving average ‡Estimated



Source: "Changes in burnout and satisfaction with work-life integration in physicians during the first two years of the covid-19 pandemic", by T. D. Shanafelt et al., *Mayo Clinic Proceedings*, Sep 2022

In England the NHS waiting list has grown by more than 60% since the pandemic was declared. Many of the people on the list, and on similar ones in other countries, are likely to be sicker, and thus to take up more resources than if they had received care in 2020. A recent paper published in *Lancet Public Health*, another journal, estimates that over the next two decades deaths from colorectal cancer could be nearly 10% higher in Australia than pre-pandemic trends suggested, in part because of delays in treatment.

Covid continues to add to demand as well. The Institute for Fiscal Studies, a think-tank, estimates that the disease is cutting the number of available beds in the NHS by 2-7%. As covid-positive patients draw resources, providers offer everyone worse care. Research by Thiemo Fetzer of Warwick University and Christopher Rauh of Cambridge University suggests that for every 30 or so extra covid deaths, one non-covid patient dies, "caused by the disruption to the quality of care".

The effects of malfunctioning health-care systems go beyond unnecessary deaths. People come to feel that their country is falling apart. If you live in a rich country and fall ill, you expect someone to help. And someone is definitely supposed to help when the tax burden is at or close to an all-time high, as it is in many places. In time, the backlog created by the pandemic will disappear. The surge in respiratory viruses in adults and children has probably peaked. Administrators have made progress in tackling enormous waiting lists. But with an ageing population, and covid now an ever-present threat, pre-pandemic health care may come to seem like it was from a lost golden age. ■

The re-globalisation paradox

Return to sender

HONG KONG

In 2023 the world will visit China more often and buy less from it

At the annual World Economic Forum meeting this week in Davos, Switzerland, China's economic tsar, Liu He, met a number of "old friends" he had not seen during his country's long battle with covid-19. In a solicitous speech, he acknowledged the importance of in-person meetings, lamented the fragmentation of the world and called for economic "re-globalisation". In a philosophical aside, he also emphasised the "duality" of things.

China's recently abandoned "zero-covid" policy cut the country off from the rest of the world, contributing to the fragmentation Mr Liu bemoaned. But China's period of isolation had a notable duality of its own. Although the movement of people across China's borders was sharply curtailed, the movement of goods from China to the rest of the world was spectacular. Despite all the disruptions, China's exports grew by almost 30% in dollar terms in 2021 and by another 7% in 2022, according to figures released on January 13th. Perhaps in-person meetings are overrated.

China's episodic lockdowns proved less damaging to trade than feared at the time. When Shanghai was brought to a standstill in April and May, many worried it would clog international supply chains and push up global inflation. But a lot of trade passed through nearby Ningbo instead. An index of global supply-chain pressure, created by economists at the Federal Reserve Bank of New York, peaked at the end of 2021, before China's fraught battles with Omicron last year. The index's decline since then was interrupted by the Shanghai lockdown and Russia's invasion of Ukraine, but not for long. Prices tell a similar story. In June, when the headline inflation rate in the United States peaked at 9.1%, the average price of Chinese imports into America rose by only 3.3%, compared with a year earlier.

With the abrupt removal of China's zero-covid policy, the flow of people, like Mr Liu, across the mainland's borders has resumed. The number of passengers on Air China's international routes rose by a third in December compared with the previous month. Other parts of the economy will also improve as the year unfolds. A recovery is expected in retail spending, which fell last year and would have been even weaker had it not been for the anxious stockpiling of food and medicines. The outlook should also improve for home sales, which shrank by more than a quarter in 2022, the sharpest decline on record. The government has given property developers a "blood transfusion", Mr Liu reported in Davos, helping them raise finance. It has also taken steps to quicken the pulse of the market, which he hopes will help developers raise much-needed revenue.

But the glaring exception to this brighter outlook is exports. They are likely to fare worse in China's year of reopening than in its last year of lockdowns. Indeed, the monthly figures have been negative in the past three releases. According to UBS, a bank, merchandise exports will shrink by 4% in dollar terms in 2023 as a whole. This would be only their fifth such fall since 1980. The re-globalisation of China's people will coincide with a deglobalisation of its goods. China will attract many more foreign visitors and fewer foreign sales.

In one important respect, China's reopening has made life harder for its ex-

Losing bounce

porters. The turnaround in China's zero-covid policy has contributed to a revival of the yuan, which has risen by 8% against the dollar since the start of November, making Chinese exports less competitive. Mr Liu invited his audience in Davos to visit China again. But even before the global capitalists arrive, global capital has rushed to reacquaint itself with Chinese assets, bidding up the price of its currency. Exporters have also converted more of their dollar earnings into yuan.

The main reason for the export bust, though, lies outside China. The slowdown in the world economy will cut demand for its wares. And the landing will not necessarily be soft. In December, for example, China's sales to America, the EU and Japan fell by 17% compared with a year earlier. Ting Lu of Nomura, another bank, worries that China will suffer from the so-called bullwhip effect. A small dip in demand from consumers can lead to pronounced drops in orders for upstream suppliers, just as a small flick of the wrist can lead to a vicious crack of the whip.

Even if the level of global spending proves resilient, the mix is becoming less favourable to China. In America and other rich countries consumption has shifted from the sorts of electronic goods that are prized by people working from home to the services people enjoy when they are able to move and mingle. China's global shipments of computers and their parts shrank by 35% in the latest trade figures. When the threat of lockdowns dangled over global supply chains, people worried that China's exporters were a source of vulnerability for the world economy. Instead, the world economy is proving a source of vulnerability for China's exporters. ■

Buttonwood The $300bn question

Why aren't venture capitalists spending their enormous pile of cash?

CONSIDER THE following puzzle. In 2021 venture capitalists raised $150bn in fresh cash, a record amount. Despite a market slowdown, they broke the record once again in 2022, raising more than $160bn. Chunks of this have already been spent, but close to $300bn of "dry powder" sits waiting to be put to use. Indeed, spending fell throughout 2022. Fledgling firms appear cheap. Why, then, are venture capitalists sitting on the cash?

As with many other puzzles in finance, the answer starts with the rapid rise in global interest rates since the start of last year. Higher rates have caused the value of stocks to plummet, as investors have moved capital into safer assets such as cash and government bonds. The tech-heavy NASDAQ index has lost more than a fifth of its value over the past year. In 2022 the amount of capital raised in stockmarket listings dropped to a 32-year low. Public-market slowdowns such as the one currently in progress reduce expected returns for investors in private markets by lowering the valuation at which startups "exit" into public markets. Venture capitalists therefore demand lower prices in order to invest in the first place.

This especially hurts funding for late-stage startups that in normal times might be close to a public listing. Some firms, flush with cash from fundraising in 2021, are choosing to wait things out, reducing the pace of new deals. The smaller number continuing with plans must hope to avoid a dreaded "down-round", in which a startup raises cash at a lower valuation than in a previous round—a let-down for employees and early investors who are forced to confront losses on their shares. Meanwhile, investors have become less willing to take a punt on riskier opportunities. They can no longer count on another backer following them into a deal and helping make it a success either with expertise or raw cash.

The second part of the answer is more subtle. In theory, venture capitalists could spend the money they have in hand. It is, after all, already committed to their funds. For some firms, doing so would mean they would also avoid losing out on management fees which only apply to invested capital, not that merely promised to their funds, after a certain period of time.

But spending at a breakneck pace would almost certainly prove to be self-defeating in the long run. Venture capitalists periodically raise money from limited partners, such as endowments and pension funds. Many of these now want to reduce their exposure to venture capital, since public markets have taken a hit and they seek to keep allocations to different asset classes in rough proportion. As a result, a handful are calling up venture-capital funds to say things to the effect of "don't rush back" for more money, says an investor in several venture-capital funds.

Venture capitalists are listening. Harry Nelis, a partner at Accel, a venture-capital firm, speculates that cash which might have taken a year to spend during the market boom will now be made to last around three times as long. And spending could get even slower. The money raised by venture-capital funds does not actually sit in their bank accounts. Instead, funds must make "capital calls" to their limited partners when they want to finance an investment. This forces the limited partner to free up cash from elsewhere in their portfolio, which they are loth to do at a time of stress. Funds are well aware that they will want to come back to their partners for more money in the future, so seek to avoid irritating them by placing calls at awkward times. Indeed, in 2001, during a slowdown which followed the dotcom bubble, some investors even "returned" committed funds to limited partners, so that their partners could reallocate the money as they wished.

Venture capitalists have other reasons to be concerned about relations with limited partners. During the recent boom, funds started to poke their noses far beyond their usual concerns. Sequoia Capital, a famous outfit in Silicon Valley, launched a "superfund" which includes investments ranging from traditional venture-capital interests to public-market shares. Some limited partners thought these sorts of funds were absurdly broad, but opted to buy in anyway in order to gain access to specialist funds. Little wonder that venture capitalists are now slamming on the brakes and seeking to repair relations with their limited partners. At least as long as market conditions remain miserable, the industry's world-conquering ambition will remain on hold.

Japan's economy

Speculators swatted

TOKYO

An extraordinarily expensive defence of an extraordinary monetary policy

IN DECEMBER THE Bank of Japan (BOJ) gave speculators an opening. By lifting its cap on ten-year government bond yields from 0.25% to 0.5%, the central bank raised the prospect that it would abandon its "yield-curve-control" policy entirely. Since then, officials have been put to the test by increasingly unco-operative bond markets. The BOJ has been forced to make enormous bond purchases in an attempt to drive down the yield, buying ¥9.5trn ($72bn) on January 12th and 13th alone.

Speculators excitedly awaited the BOJ's next meeting. Would it be the moment the central bank gave up the fight? On January 18th the BOJ announced it would in fact keep going. The bank even promised to buy more bonds if necessary. The yen slumped on the news; short-sellers licked their wounds. Yet defending the policy is becoming astonishingly costly. The BOJ's difficult decisions are not going away.

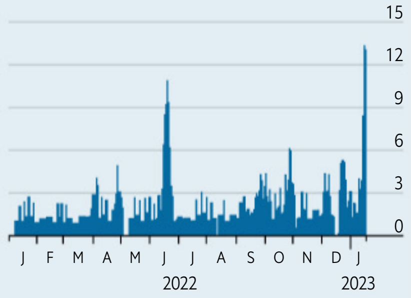
Yield-curve control was introduced by the bank in 2016 as part of an aggressive programme of monetary easing, which officials hoped would lift Japan's dormant inflation and economic growth. The BOJ is one of the few central banks to have stuck to its guns in 2022—neither raising interest rates nor halting big asset purchases—as inflation has risen around the world.

Japanese inflation has increased, too, but only to 3.8% year-on-year in December. This is less than half the peaks in America and the euro zone. And much of the surge is the result of high energy prices and the weak yen, which hit a 32-year low against the dollar in October. Thus the BOJ argues underlying inflation is yet to rise to its target level of 2% in a sustainable manner.

Tokyo towers

Bank of Japan, government-bond purchases*

Yen trn



Source: Haver Analytics

*Five-day moving sum

The central bank's decision to lift the cap on bond yields in December was an attempt to improve liquidity and facilitate more trading. It seems to have backfired. The BOJ owns around half of the country's bond market, and more than 95% of some bond issuances, after a decade of hefty purchases. Extra purchases to defend the cap have worsened market shortages.

The BOJ's decision to hold fast could exacerbate the situation. The central bank is building vast potential losses on its bond portfolio. If Japanese bond yields were to rise by just 0.25 percentage points, the bank's total holdings as of January 10th would slump in value by around ¥7.5trn, or 1.4% of GDP, according to our calculations. Every extra bond bought to maintain the yield cap increases the potential loss.

Higher yields also alter Japan's fiscal arithmetic. Government net debt ran to about 173% of GDP in the third quarter of last year, the highest of any rich country. Some 8% of the national budget is spent on interest payments. If payments on the stock of government debt rose by the same amount—0.25 percentage points—the total bill would run to ¥11trn, or 10% of this year's government budget. In the year ahead, the BOJ has no good options. ■

Results season

Marginal profits

WASHINGTON, DC

Investment banks are struggling in a high-interest-rate world

SHAREHOLDERS LIKE profits: a steady stream of income they can count on, quarter after quarter. The earnings America's biggest banks make, however, are often pushed around by the volatility of the economy they serve. If the economy accelerates, demand for loans takes off; if it slows, bankers must set aside provisions for bad loans. Investment banks' trading businesses tend to do well in times of volatility and uncertainty, but their advisory services sell best when markets are healthy and stable. Bank bosses must try to balance their exposure to these forces.

The past three years, during which the American economy has experienced a pandemic-induced shutdown, a financial boom and a rate shock, have been unusually volatile. As a result, the period has been an interesting test of just how successful bank bosses have been in their efforts to balance the performance of their businesses. The results were on show between January 13th and 17th as Bank of America, Citigroup, Goldman Sachs, JPMorgan Chase, Morgan Stanley and Wells Fargo took it in turns to report fourth quarter and full-year earnings.

Altogether profits at the six banks fell by 20% from $34bn in the fourth quarter of 2021 to around $27bn in the same period of 2022—but the pain was not evenly spread. Earnings at JPMorgan and Bank of America were up a little. Meanwhile, at Goldman Sachs they were down by two-thirds. Some of this gap can be explained by their different strengths. Firms with big consumer banks, such as Bank of America and JPMorgan, typically do well when interest rates jump. Rising rates tend to increase the difference between what banks pay out on deposits and earn on loans. Net interest income, as this gap is called, zoomed higher in 2022. It climbed by $17bn between the end of 2021 and 2022 across the big six banks, reaching $66bn.

This increase is partly offset by the fact that higher interest rates will make it harder for consumers and companies to pay back debts. Banks also set aside some $7.2bn for loan losses in the fourth quarter of 2022. Jamie Dimon, boss of JPMorgan, and Brian Moynihan, boss of Bank of America, have both predicted a mild recession in America this year. Yet for the moment the net effect of higher interest rates on profits remains positive.

Investment-bank revenues, which fall when stockmarkets do badly, dropped by around 50% at Goldman and Morgan Stanley. But the divergence in profits between the six banks cannot simply be explained by the differing performance of investment and consumer banks. For one thing, profits at Morgan Stanley, where non-investment-bank businesses did well, dropped far less sharply than at Goldman. For another, Wells Fargo offered up another bleak quarter, despite its big consumer bank, with profits half their level a year ago.

The pain at Wells can be explained by regulatory troubles. In December the bank agreed to pay an enormous fine of $1.7bn to the Consumer Financial Protection Bureau, for improperly managing millions of consumer accounts. It is harder to explain the situation at Goldman. The firm sought to build a consumer bank, in part to diversify its business. But it has had to set aside unusually high provisions for loan losses in that department, and is now scaling back its efforts. "What went wrong?" asked one analyst on the Goldman earnings call on January 17th. David Solomon, the bank's boss, argued the firm had tried to do too much, too fast and had lacked the talent to pull off some of its wide-ranging ambitions. Six days earlier the company had sacked 6.5% of its workforce.

The enormous economic shocks in recent years have revealed just how different the six banks have become. In some cases, the shocks have also revealed just how poorly they have been managed. ■

Property

The view from the top

NEW YORK

Absurdly opulent offices defy the market's gloom

It is lunchtime at One Vanderbilt, a new office tower which juts out of midtown Manhattan. The building's vast basement kitchen hums, as harried staff in chef's whites leap in and out of swing doors. Upstairs, gourmet salads and soup are served in a lounge overlooking Grand Central Station; a sit-down restaurant offers *foie gras*, grilled scallops and other dishes from Daniel Boulud, a celebrity chef. There is not a soggy, al-desko sandwich in sight.

Across the rich world, the commercial-property industry is in a grim state. Tenants have come to terms with the fact that working from home is here to stay, and are downsizing appropriately. In cities such as Hong Kong, London and Paris vacancy rates have hit record highs. Another indicator of the darkening mood is that global investment in offices last year fell by 42%, compared with a 28% drop for property as a whole. A recent paper by Arpit Gupta of New York University and Vrinda Mittal and Stijn Van Nieuwerburgh of Columbia University forecasts that offices in New York could lose almost 40% of their value between 2019 and 2029, equivalent to $453bn.

Yet One Vanderbilt, a 93-storey skyscraper with a sparkling "hall of light" observatory at its top (pictured), is among a spate of new trophy properties and renovated buildings offering interiors and services akin to those at elite private-members clubs. Last year tenants in Manhattan signed deals for 6.1m square feet (566,709 square metres) of high-end office space, double the amount the year before, according to JLL, a property firm. The luxurious turn was under way before the pandemic, but accelerated as companies found themselves in competition with home offices. If a firm needs space for only half its workers each day, it can pay more per square foot.

The picture at the top of the commercial property market is therefore very different to the misery in the lower echelons. Although New York is home to the most opulent new-builds, extravagant offices are appearing in other global cities, too. In London 105 Victoria Street's owners are adding 30,000 square feet of green space—the equivalent of 14 tennis courts—including an urban farm and a "walk-and-talk" track. Merdeka 118, a skyscraper under construction in Kuala Lumpur, will boast one of the world's loftiest observation decks.

Before the pandemic, desks accounted for around 60% of office space, according to Cushman and Wakefield, a property consultancy. Things have changed considerably. New and refurbished offices are using half that space for workstations, and raising the share dedicated to amenities from 5% to 20%. Meditation rooms, bike storage, showers, outdoor spaces and other treats are now *de rigueur*.

The result is an arms-race at the very top of the market, particularly in the most competitive cities. Many of the new breed of luxury offices offer concierges—some having poached hospitality teams from places such as the Four Seasons hotel chain—and rooftop bars serving high-quality booze. They typically boast eye-catching entrances. The lobby in 425 Park Avenue, an office block round the corner from One Vanderbilt, is three storeys tall. At Spiral, a new tower with tree-lined terraces on every floor, the lobby is infused with a signature scent and soothing music.

Height of luxury

The ambition is to make life as cushy as possible for workers—not just to get people back into the office, but also to aid recruitment in a tight labour market. Tenants at 50 Hudson Yards, home to BlackRock, an investment firm, and Meta, a social-media giant, have access to a helipad, which offers five-minute transfers to John F. Kennedy International Airport for roughly the price of an Uber SUV. Other offices provide services such as pet care, baby-sitting and dry cleaning. Landlords are rushing to spruce up older offices as well. The GM Building, a 55-year-old tower overlooking Central Park and once owned by the Trump Organisation, was recently refurbished to include a bar, lounge and fitness centre with spin and yoga studios.

Modern workers do not just seek luxury, however. They also want to salve their consciences. As a result, green buildings are increasingly popular. For landlords, these have the twin advantages of attracting higher rents and hedging against obsolescence, as countries look to meet their net-zero carbon goals. New energy-efficiency requirements for buildings in England and Wales mean that more than half of London's office stock could be unusable by 2027. In Europe buildings will be required to source roughly half their energy from renewable sources by 2030. Among the newer breed of offices, clean air, minimal carbon emissions and better insulation are commonplace. One Manhattan West, another tower in the Hudson Yards development, is powered entirely by renewable energy. Like many developers, the tower's owner, Brookfield, is aiming to achieve net-zero emissions by 2050.

Yet one question hovers over the luxury boom, and it is a big one. What happens to the market if economic conditions deteriorate? After the global financial crisis of 2007-09, premium buildings were hit less hard than their more humble rivals, but the whole industry suffered. In London, prime-office rents in the third quarter of 2009 were 35% below their peak in 2007. The owners of today's luxury towers must hope that *foie gras* and high-tech gyms will protect them next time around. ■

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Free exchange | Race to the bottom

Europe may end up with a worse inflation problem than America

INFLATION IS COMING down. On both sides of the Atlantic, falling energy costs are provoking sighs of relief. Price-watchers are now focused on core inflation, a measure that strips out volatile food and energy prices, and is usually much slower to rise—and more difficult to bring down. Since October, core inflation in the euro zone has been higher than in America. Could Europeans end up with a worse inflation problem than their transatlantic peers?

Every economist knows Milton Friedman's dictum that "inflation is always and everywhere a monetary phenomenon." But the Nobel-prizewinner's words do not seem to capture the current bout of inflation, where post-pandemic supply disruptions, fiscal splurges, an energy shock and labour shortages have created a near-perfect storm causing prices to soar. How fast inflation comes down may therefore depend not only on what central banks do but on how these factors—the disruptions, energy shock and wage rises—affect economies on either side of the Atlantic.

Alongside these surprises, there has been extraordinary tumult in the basic operations of rich-world economies. Covid-19 altered how people work, what they consume and where they live, and did so in short order. Removing pandemic restrictions then led to a surge in demand for travel, nights out and treats. On top of this, governments in America and Europe have decided to subsidise green technologies on an unprecedented scale. Capital, production inputs and workers need to move to parts of the economy that are growing and away from those that are shrinking. Until they do, the economy cannot produce enough to meet demand.

Yet moving jobs or investing in new plants or software takes time. A boom accelerates the process. Recent work by Rüdiger Bachmann of the University of Notre Dame and colleagues shows that workers in Germany are more likely to change jobs when demand is high than during recessions. Another study, using American data, suggests that moving to a growing firm increases pay for the job-switching worker substantially. The current shifts in the economy are therefore likely to produce some inflation—and that may be desirable. A recent paper by Veronica Guerrieri of the University of Chicago and colleagues argues that monetary policy should tolerate somewhat higher inflation if doing so allows workers to find a new job during periods of economic change.

Government policies in America and Europe have affected the pace of adjustment to these changes. Europe's approach was generally to try to freeze things in place during the pandemic. The continent's governments created generous furlough schemes, which kept workers in their existing jobs. Unlike America, there was no boom in durable-goods consumption, financed by stimulus cheques, that required expanded production. Nor did Europe run its economy hot to aid a reallocation of workers and capital. If inflation in America is the result of an economic reshuffle, it may come down faster than Europe's once that process is complete.

Europe also had to cope with a different economic hit. Julian di Giovanni of the Federal Reserve and colleagues show that, compared with America, supply crunches accounted for a greater share of inflation in 2020-21. Wholesale gas and electricity prices began to rise in autumn 2021, and soared after Russia invaded Ukraine, with oil and coal prices following. This added much more to inflation in energy-importing Europe than it did in America.

The consensus in economics is that central banks should not tighten policy too much in response to a temporary supply or energy shock. Coping with such a shock is hard enough—no need to give the screw another turn. The effects should subside over time so long as inflation expectations stay stable. Now that supply crunches in everything from lumber to chips are easing and energy prices are coming down, Europe should benefit more than America. That is if inflation has not become entrenched.

Inflation gets baked into economies when workers and firms come to believe that prices will keep rising. In the worst-case scenario, this creates a wage-price spiral, with workers and firms unable to agree on a division of the economic pie. In a tight, flexible labour market like America's, which has little collective bargaining, wage growth should quickly track inflation. And that is what happened: wage growth accelerated when inflation began to rise. As a new paper by Guido Lorenzoni of Northwestern University and Ivan Werning of the Massachusetts Institute of Technology argues, this theoretically increases the risk of a wage-price spiral. But America seems to have made it past the point of greatest danger. According to Indeed, a hiring website, the country's wage growth, though high, has been coming down for a while.

Blessed unions

In Europe, wages are often decided in collective-bargaining agreements. Across the EU around six in ten workers are covered by such arrangements. Deals typically last a year or more, meaning that wages take time to adjust to economic conditions. That was great when inflation got going. Wage pressures did not immediately add to inflation. Unions and firms could negotiate about how to divide the blow to incomes and profits. After all, the two sides meet at the same table every year, to take stock and adjust. Since they cover large chunks of the economy, they have reason to take the macroeconomic effects of any deal into account.

But relations are feeling the strain. With inflation in Europe stubbornly high, unions are demanding extra compensation for their members. Germany's public-sector outfits are seeking a 10.5% increase in the latest round of bargaining. Such delayed increases in pay are a normal feature of an economy where wages take time to adjust and which has been hit by a supply shock. As Messrs Lorenzoni and Werning demonstrate, real wages typically take a hit before recovering to their old level. But whereas America appears to be making progress, the old continent remains some way behind. Europe's inflation race has longer to run. ■

The new Moon race

This time it's private

Three rival firms each hope to land the first private-sector probe on the Moon in the next few weeks

In recent years launching things into orbit has become the province of private enterprise. Of 178 successful missions in 2022, 90 were by companies (in many cases subcontracted by governments), and of those 61 were by one firm, SpaceX. When it comes to sending things to the Moon, however, governments retain a monopoly of success. *Beresheet*, a privately paid for Israeli probe, ended up crashing into it in 2019. From the Apollo programme of the 1960s and 1970s to recent endeavours, such as China's robotic rover, *Chang'e 5*, all successful lunar landers, orbiters and rovers have been launched at taxpayers' expense.

That seems likely to change in the next few weeks, when an uncrewed lander becomes the first commercial vehicle to touch down on the Moon. But which lander—and which company—will claim that accolade remains unclear. One vehicle, HAKUTO-R *Mission 1*, operated by ispace, a Japanese firm, is already on its way and is scheduled to land in late April. But two others are preparing to launch shortly and could still get there first. There is, in other words, a new Moon race.

HAKUTO-R *Mission 1* was launched on December 11th on a SpaceX Falcon 9 rocket. Having climbed beyond the Moon's orbit, it reaches its apogee of 1.4m kilometres on January 20th and will then fall back towards the Earth-Moon system. Its trajectory has been artfully designed so that it will pass close to the Moon and go into orbit around it. This "low energy" approach to arriving at the Moon takes longer, but uses less fuel, than a direct trajectory. As the Apollo missions showed, it is possible to get to the Moon in a few days, but it is then necessary to burn a lot of fuel to slow down and enter lunar orbit.

HAKUTO-R's frugality saves weight, allowing for a larger payload. It is carrying two small rovers (one very small; the size of a baseball) and several cameras. But its slower voyage also means that it could be overtaken by two other landers intended to arrive on the lunar surface before its planned touchdown at the end of April.

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The first of these is Nova-C, created by Intuitive Machines, a startup in Houston, Texas. Nova-C should launch in March—the announcement of an exact date is expected shortly—on a Falcon 9, and will take about six days to travel to the Moon and touch down. The company's boss, Steve Altemus, says a direct trajectory minimises the radiation risk to the craft. Nova-C's design uses technology from Project Morpheus, a programme operated by NASA, America's space agency. This includes hazard-detection systems for landing, a novel engine design and the option for future landers to deploy a smaller vehicle that can "hop" by taking off and landing again.

Nova-C will carry a selection of cameras and other instruments, including several from NASA, which has paid some of the mission's cost as part of its "commercial lunar payload services" (CLPS) programme. This involves the agency acting as an "anchor tenant" on a commercial lander and buying several payload slots, rather than building and operating the vehicle itself. Intuitive Machines is contracted under CLPS to send three Nova-C landers to the Moon by the end of 2024. This is the first.

The third contender, the Peregrine

lander built by Astrobotic Technology, in Pittsburgh, Pennsylvania, also operates under the CLPS programme. Like the HAKUTO-R vehicle, it has its origins in the Google Lunar X Prize, a contest that offered $20m to the first team to land a small rover on the Moon. (The contest was shut down in 2018 and the prize went unclaimed.) Peregrine is to be launched by the end of March on the inaugural flight of the Vulcan Centaur, a new rocket being developed by United Launch Alliance, an American launch provider. That adds an element of risk, and the launch of the Centaur has been repeatedly delayed. But Astrobotic is still in with a shot of getting to the Moon first.

Competition policy

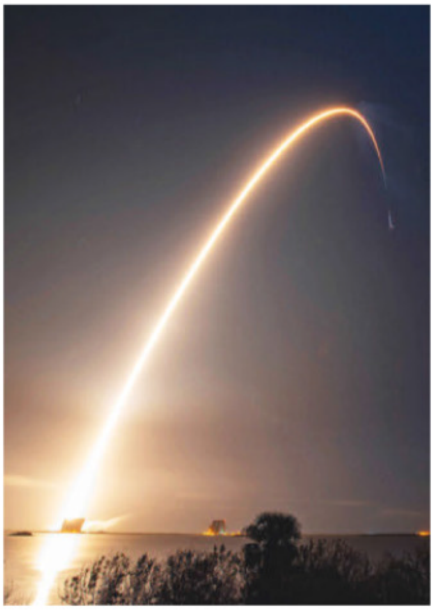
Like its rivals, Peregrine will carry a small rover and a suite of instruments, several of them from NASA. Astrobotic has also developed a larger lander, Griffin, which will provide NASA with a resource-prospecting rover at a location near the lunar south pole, in another CLPS mission intended to take place in late 2024.

Who will win this new Moon race, and does it matter? "We do not believe this is a race to be first," declares Hakamada Takeshi, founder and boss of ispace, who says he is "proud" that his craft is part of this group of "trailblazing" landers. Mr Altemus, of Intuitive Machines, says his firm's missions "will have many firsts associated with them," regardless of who wins this particular race. Both he and Mr Hakamada emphasise that their focus is to lay the groundwork for regular service to the Moon, opening up new opportunities for both governments and private companies. "The friendly competition only encourages more interest," Mr Hakamada says.

But what exactly are the opportunities being opened up? Being able to put things into orbit around Earth has made all sorts of things possible, from GPS navigation and satellite TV to better internet access and weather monitoring, as well as military uses. Access to the Moon has little obvious benefit beyond pure scientific research. Many of NASA's CLPS payloads are intended to pave the way for the return of people to the Moon, for example by scouting possible landing sites or searching for resources (such as ice) for possible exploitation, notably as a source of fuel. But such "*in situ* resource extraction", as it is known, opens a new can of worms, because there is no international agreement on the legal status of the Moon.

The Outer Space Treaty of 1967, space law's foundational text, is showing its age. It dates back to the era when only governments had access to space. And it states that no claims of sovereignty can be made, on the Moon or elsewhere. Efforts to update the treaty to establish rules around resource extraction have run into the lunar regolith. America has refused to sign the Moon Agreement, adopted by 18 countries in 1984, whereas China and Russia have rejected America's latest proposal, the Artemis accords of 2020.

The debate over who owns the Moon has been the subject of speculation since long before the space age. Lucian, a Greek satirist of the 2nd century AD, described a lunar voyage in which he claimed to meet Endymion, the king of the Moon. As the trio of landers now hoping to reach the lunar surface illustrate, cheap rockets and new technology mean that the previously fantastical question of the Moon's ownership is about to get very real. These craft are the first representatives of a planned flotilla of lunar vehicles, both crewed and uncrewed, publicly and privately funded, that herald a new Moon rush. That brings possibilities, but it also raises tricky questions about the trajectory of humanity's exploration and exploitation of space. ■



HAKUTO-R reaches for the Moon

The search for ET

You can't hide out there for ever

SEATTLE

Ideas for finding ET are getting more and more inventive

This month the VLA (Very Large Array) radio-astronomy observatory in New Mexico will begin sending every bit of data it harvests for astronomers' research projects to COSMIC, a computer cluster dedicated to the search for extraterrestrial intelligence (SETI). A similar system has been piggybacking on the MeerKAT observatory in South Africa (pictured on next page) since December.

Over the next two years, the VLA alone will cast an eye over 40m stars. Computers will also be mining data from past surveys, in radio frequencies and in visible light, for anything that seems both unnatural and not from Earth, says James Davenport, an astronomer at the University of Washington who works with such surveys.

If there are many technologically advanced civilisations in the galaxy, emitting powerful signals, this might well be the right approach, according to Steve Croft of the University of California, Berkeley. Some of them will then be where users of the VLA happen to be looking. Either that, or they will be close enough to be detectable from existing survey data.

But if extraterrestrial civilisations are rare, and thus mostly far away, or if they rarely broadcast with a lot of power, they will be found only by selecting promising sources in advance and staring at them for a long time. This is done by the Green Bank Telescope, a large radio dish in West Virginia, for which the Berkeley SETI Research Centre has contracted 20% of the observing time, with Dr Croft as project scientist.

Dr Davenport and Dr Croft were both addressing a session on detecting extraterrestrial intelligences at a meeting of the American Astronomical Society, held in Seattle from January 8th-12th. This is a field that goes in and out of fashion, but at the moment fortune is smiling on it in the form of the Breakthrough Listen project, paid for by Yuri Milner, a Silicon Valley venture capitalist.

Breakthrough Listen, which began in 2016, is scheduled to last for ten years, and will disburse $100m over that period. The money is paying for observations by the Green Bank Telescope, MeerKAT, the Parkes radio observatory in Australia and the Automated Planet Finder telescope at the Lick Observatory in California.

A question preoccupying Dr Croft is how to select Green Bank's targets. One answer is to try to get inside ET's head (or equivalent brain-containing part of the anatomy). Starting from the assumption (admittedly generous) that there are beings out there who actively wish to talk to their galactic neighbours, how would they go about it?

As luck would have it, one obvious approach does ET-seekers' work for them. A good way to discover planets orbiting other stars is by looking for transits—brief diminutions in the light from a star caused by a planet passing in front of it, as seen from Earth. So far 3,941 planets orbiting other stars have been discovered that way. This method would also be obvious to extraterrestrial intelligences, and it would make sense for them to concentrate their broadcasts on planets they have discovered. For Earthbound seekers after aliens, this means they have to orient their antennas towards the Earth Transit Zone, a band across the sky from which Earth could be seen to transit the sun. Directing his telescope at planets known of in that zone would be a good gambit for Dr Croft.

Another suggestion is that garrulous ETs might use supernovae to flag transmissions. That, Dr Davenport explained, might work like this. An extraterrestrial intelligence which wanted to make itself known would broadcast high-power signals of its existence every time its astronomers observed a supernova—and then wait.

What happens next is a complicated geometrical dance. Two wavefronts of electromagnetic radiation—one from the supernova and one from the ET—are now spreading through space at the speed of light. For most potential listeners, they would arrive at different times, depending on their location with respect to both.

Galactic semaphore

It would make no sense for those seeking their galactic neighbours to start listening precisely when they saw a supernova, for they would not know where to look for any signal that might have been sent in response to it. But what such listeners, including those on Earth, could do, is go back to their archives and choose a supernova they saw in the past, say 1,000 years ago. The next step would be to see if there are any stars for which the time the supernova signal would take to travel there, plus the time for the broadcast it may have triggered to travel to Earth, would add up to 1,000 years as well. Those would be the stars from which signals could potentially be arriving at that moment.

As he told the meeting, Andy Nilipour of Yale University has been doing just this for supernovae described in 1054 by Chinese astronomers, in 1572 by Tycho Brahe, in 1604 by Johannes Kepler and in 1987 by many, many astronomers. Using data from Gaia, an orbiting observatory belonging to the European Space Agency, he is able to measure the locations of many stars with a precision of a few light-years. He has found 465 that fit the bill.

Such a level of precision is available, though, only for stars that are fairly close by. A complementary approach, proposed recently by Seto Naoki of Kyoto University, overcomes that by looking not at stars a certain distance from a supernova, but in a certain direction relative to it.

MeerKAT's eyes are searching for aliens

This would, Dr Seto outlined in a paper he published in 2021, work somewhat like a rugby player passing the ball to another who is running at full tilt. At any given time, there is a special direction to throw the ball, so that it will arrive while moving at right angles to the direction of the receiving player. In a similar way, you can at any particular moment find a special direction for two planets and a supernova. With luck, both parties will know to look in that direction to make contact. Mr Nilipour has also found 403 stars for which this approach would work, for a total of 868 between the two methods.

These approaches do, though, depend on ET wishing to be found. Other civilisations may be shy, or simply not care. It may nevertheless be possible to discover where they are hiding.

In 2013, Andrew Siemion, who now works at the SETI Institute, a non-profit organisation that has been active in the alien-searching business since 1984, proposed looking for systems where planets not only transit their star as viewed from Earth, but also regularly occult each other, which means two of them line up precisely in the direction of Earth. If both were inhabited by members of the same intelligent species, one having been settled from the other, they would presumably be in communication. That would require fairly powerful signals—and in this case they would be aimed in exactly the right direction to travel onward to Earth.

Evan Sneed of the University of California, Riverside, Sofia Sheikh of the SETI Institute, and Nick Tusay of Penn State University are now doing the calculations for 60 promising systems where transits happen, to work out a calendar for observing them. So far, they have looked at seven.

Mr Tusay also told the conference about his search for extraterrestrial probes in the solar system. That such things exist is an even longer shot than looking for radio signals from afar. But that, in the view of SETI enthusiasts, is not a reason not to try.

The question is, where to scout around? In principle, such probes could be anywhere. But there are places where they might be especially useful to their owners. These are where the sun's gravity would concentrate light or radio waves from particular nearby star systems. It is easy to calculate that any signal from, say, Alpha Centauri, would be enhanced along a line pointing away from the sun in opposition to that star system, starting 550 times as far from the sun as Earth is.

That Alpha Centauri or any other nearby star system is home to an ET is the longest of long shots. But, doubling down on what such civilisations might be capable of, Mr Tusay suggests probes like this might be relay stations, passing signals on to others in communication with other systems. This would make the solar system a node in a galactic internet of sorts.

Such probes might also exchange signals with counterparts in the centre of the solar system, closer to Earth, keeping an eye on what was happening there. That means those signals might be detectable.

Mr Tusay looked for such signals with the Green Bank Telescope, but found none. However, in the grand tradition of SETI research, the motto of which seems to be "never give up", this has not made him discard the idea just yet. Probes like this might communicate in ways no one has looked at or even thought of, or maybe they happened to be silent when the observations were done.

Spiders, but not from Mars

Carmen Choza of the Berkeley SETI Research Centre, meanwhile, presented the results of a so-far fruitless search for beacons not in nearby star systems in the Milky Way, Earth's home galaxy, but in 97 others. To be detectable from such distances any radio broadcasts would have had to be unbelievably powerful—and so presumably produced by civilisations that can harness the power of whole stars.

An intelligent species with such energy requirements would have a hard time hiding, if it even cared to. It might even become what Clément Vidal, a philosopher, calls a stellivore civilisation. Tapping the power of entire stars would require engineering on a grand scale. Dr Nilipour plans to look in this context at a special kind of star system called a spider pulsar.

Spider pulsars are thought to be neutron stars with a low-mass ordinary star orbiting so close that it is being destroyed by the neutron star's emissions. Mr Nilipour wants to see if there is anything going on here that might not be quite natural.

His first step will be to spot stars in the growing Gaia catalogue which are on their way to having a close encounter with a spider pulsar. Anything about their relative motion that would require the influence of more than regular gravity would suggest a stellivore preparing to tuck into its next meal. He has already found some semi-promising candidates—in particular, some stars that may fall victim to such attention in 10,000 years or so.

There is no spider pulsar near Earth, fortunately. But such ideas, wild as they are, do raise the question of whether human beings should do more than just listen for signs of ET. Talking, albeit with a time delay of decades or even centuries, with other intelligent species would be exhilarating. But if it involved organisms with that sort of power, it might also be pretty dangerous. ■

Neuroscience

Dopamine. Dogma. Doubt

A model of learning that is decades old is under fire—with implications for AI

The buzz of a notification or the ding of an email might inspire excitement—or dread. In a famous experiment, Ivan Pavlov (pictured) showed that dogs can be taught to salivate at the tick of a metronome or the sound of a harmonium. This connection of cause to effect—known as associative, or reinforcement learning—is central to how most animals deal with the world.

Since the early 1970s the dominant theory of what is going on has been that animals learn by trial and error. Associating a cue (a metronome) with a reward (food) happens as follows. When a cue comes, the animal predicts when the reward will occur. Then, it waits to see what arrives. After that, it computes the difference between prediction and result—the error. Finally, it uses that error estimate to update things to make better predictions in future.

Belief in this approach was itself reinforced in the late 20th century by two things. One of these was the discovery that it is also good at solving engineering problems related to artificial intelligence (AI). Deep neural networks learn by minimising the error in their predictions.

The other reinforcing observation was a paper published in *Science* in 1997. It noted that fluctuations in levels in the brain of dopamine, a chemical which carries signals between some nerve cells and was known to be associated with the experience of reward, looked like prediction-error signals. Dopamine-generating cells are more active when the reward comes sooner than expected or is not expected at all, and are inhibited when the reward comes later or not at all—precisely what would happen if they were indeed such signals.

A nice story, then, of how science works. But if a new paper, also published in *Science*, turns out to be correct, it is wrong.

Researchers have known for a while that some aspects of dopamine activity are inconsistent with the prediction-error model. But, in part because it works so well for training artificial agents, these problems have been swept under the carpet. Until now. The new study, by Huijeong Jeong and Vijay Namboodiri of the University of California, San Francisco, and a team of collaborators, has turned the world of neuroscience on its head. It proposes a model of associative learning which suggests that researchers have got things backwards. Their suggestion, moreover, is supported by an array of experiments.

The old model looks forward, associating cause with effect. The new one does the opposite. It associates effect with cause. They think that when an animal receives a reward (or punishment), it looks back through its memory to work out what might have prompted this event. Dopamine's role in the model is to flag events meaningful enough to act as causes for possible future rewards or punishments.

One man and his dog

Looking at things this way deals with two things that have always bugged the old model. One is sensitivity to timescale. The other is computational tractability.

The timescale problem is that cause and effect may be separated by milliseconds (switching on a light bulb and experiencing illumination), minutes (having a drink and feeling tipsy) or even hours (eating something bad and getting food poisoning). Looking backward, Dr Namboodiri explains, permits investigation of an arbitrarily long list of possible causes. Looking forward, without always knowing in advance how far to look, is much trickier.

This leads to the second problem. Sensory experience is rich, and everything therein could potentially predict an outcome. Making predictions based on every single possible cue would be somewhere between difficult and impossible. It is far simpler, when a meaningful event happens, to look backwards through other potentially meaningful events for a cause.

In practice, however, it is hard to distinguish experimentally between the two models. And that is especially true if you do not even bother to look—which, until now, people have not. Dr Jeong and Dr Namboodiri have done so. They devised and conducted 11 experiments involving mice, buzzers and drops of sugar solution that were designed specifically for the purpose. During these they measured, in real time, the amount of dopamine being released by the nucleus accumbens, a region of the brain in which dopamine is implicated in learning and addiction. All of the experiments came down in favour of the new model.

The 180° turnabout in thinking—from prospective to retrospective—that is implied by these experiments is causing quite a stir in the world of neuroscience. It is "thought-provoking and represents a stimulating new direction," says Ilana Witten, a neuroscientist at Princeton University uninvolved with the paper.

More experiments will be needed to confirm the new findings. But if confirmation comes, it will have ramifications beyond neuroscience. It will suggest that the way AI works does not, as currently argued, have even a tenuous link with how brains operate, but was actually a lucky guess.

But it might also suggest better ways of doing AI. Dr Namboodiri thinks so, and is exploring the possibilities. Evolution has had hundreds of millions of years to optimise the process of learning. So learning from nature is rarely a bad idea. ■

Culture

"Saint Omer" and "Tirailleurs"

Unheard voices

PARIS

Two new films examine parenthood, and the complex link between Senegal and France

Laurence Coly (Guslagie Malanda, pictured) is a young Senegalese woman studying philosophy in Paris. One winter evening, she takes a train to the cold northern French coast, checks in to a hotel for the night, walks to the beach on a rising tide and leaves her baby to drown. The tiny corpse is found by a fisherman, who at first mistakes the child for a seal.

Based on a true story that shook France several years ago, "Saint Omer", which was released in America on January 13th, follows Laurence's trial for murder. To describe it as a courtroom drama would be to underplay the subtle, tightly controlled study of motherhood, race, belonging and separation that lies at the centre of this darkly mesmerising film. Selected as France's entry for this year's Academy Awards, "Saint Omer" has already picked up prizes at the Venice Film Festival and in Paris. It confirms the place of Alice Diop, its French director, whose parents came from Senegal, as one of a new generation of black directors making films that challenge the way France sees itself.

The story is seen through the eyes of Rama (Kayije Kagame), a French novelist and university lecturer whose parents also emigrated from Senegal. Rama is writing a book inspired by this case of infanticide and travels to northern France to sit in the courtroom. Under cross-examination, Laurence acknowledges what she did, but is unable to explain it, muttering at one point about "sorcery". The more that she evokes her childhood struggle to fit in, both in Dakar (where she grew up) or later in Paris (where she moved), the more the parallels with Rama's own life emerge. With what amounts to a physical ache, Rama grasps their shared hurt: a troubled maternal tie, the pressure of parental aspiration and the unresolved anxiety of a life divided between two cultures.

Ms Diop's camera is unflinching: her close-up shots leave nowhere else for the viewer to look. As the lawyers attempt to pierce the appalling mystery of infanticide, the movie peels back layers of racial and cultural prejudice. A white university professor called as a witness expresses surprise that Laurence chose to study Wittgenstein rather than a figure closer "to her own culture". Ms Diop films the scenes of Laurence in a wood-panelled dock, washed through with a glorious golden light: an arresting decision, given the grimness of the subject matter, which seems to call into question the viewer's perceptions and to hint at the ambiguity of colour.

"Saint Omer" is at once a film about the African immigrant experience in France, and about motherhood everywhere. In this respect it belongs to a wave of compelling films made by black French directors in recent years. These include Ladj Ly's "Les Misérables", which came out in 2019 and examines the casual violence shattering childhood innocence in the French *banlieues* (high-rise suburbs). Another is Maï-

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mouna Doucouré's "Mignonnes" ("Cuties"), released in 2020, which explores girlhood, giggly friendship and the disturbing hyper-sexualisation of pre-teens. Mr Ly was born in Mali and grew up outside Paris; Ms Doucouré was born in Paris to Senegalese parents. Like Ms Diop, these film-makers use their multilayered understanding of contemporary France to tease out the contradictions and complexities of modern lives.

In doing so, each film looks beyond the leafy cobbled boulevards of Paris. Each, in its own way, gives a voice to the unheard. When that voice happens to be elegant spoken French, it disconcerts the viewer and challenges attitudes—exactly as Ms Diop intends it to in "Saint Omer". Laurence explains in the courtroom that, back in Dakar, her parents refused to allow her to speak Wolof, her maternal Senegalese tongue, at home; having done as instructed, she was mocked by her peers for sounding like a *Parisienne*. The eloquence with which Laurence recounts killing her child, Ms Diop has said, constitutes a form of "resistance", a way "not to be assigned to a place she doesn't want to be". "Why did you kill your daughter?" asks the judge in the film. "I don't know," Laurence replies politely, as if in a philosophy tutorial; "but I hope the trial will help me understand."

When collecting two prizes at the Venice Film Festival last year, Ms Diop nodded to Audre Lorde, a black American feminist: "Our silence will not protect us." The film-maker has said she hopes her work, which includes several documentaries, will "offer to the world all these missing stories...all these black women who haven't been heard, for whom we speak in their place."

The impulse to tell untold stories also drives a new Franco-Senegalese film, "Tirailleurs" ("Father and Soldier"), which was released in France on January 4th. Directed by Mathieu Vadepied, it was co-produced by Omar Sy, one of France's best-loved actors, who leapt to international fame for his role in "Lupin", a thriller series on Netflix. "Tirailleurs" is set in 1917, when Senegal was under French colonial rule, and tells the story of Bakary Diallo (Mr Sy), a cattle herder, whose teenaged son, Thierno (Alassane Diong), is forcibly enlisted into the French army. To try to save him, Bakary volunteers to join his son, leaving the arid scrub of Senegal for the mud and blood of the trenches.

Shot mostly in Peul (Fulani), a west African language, and screened with French subtitles, "Tirailleurs" touches on exile, fatherhood and colonial brutality. Mr Sy has never spoken Peul on screen before, even though he grew up outside Paris with it as his mother tongue; his father came from Senegal and his mother from Mauritania. The decision to use this language, with which many viewers will be unfamiliar, is as enriching as it is bold.

During the first world war nearly 200,000 soldiers, known as the "Senegalese riflemen", were enlisted from countries across west Africa to fight for France. If the film itself struggles, disappointingly, to engage the viewer, it has the merit of highlighting their sacrifice. In this sense it achieves for west Africans what Rachid Bouchareb's "Indigènes" ("Days of Glory"), did in 2006 for the north African soldiers who fought for France in the second world war. When "Tirailleurs" came out, the French government agreed to change a rule that obliged surviving veterans to spend half the year in France in order to receive a state pension. The film not only made sure that African-French voices were heard, but also that they were taken seriously. ■

Hacking software

The spy in your pocket

Pegasus. By Laurent Richard and Sandrine Rigaud. *Henry Holt; 336 pages; $28.99. Pan Macmillan; £20*

Fifteen years after the launch of the iPhone, most people understand the bargain with smartphones. You get navigation anywhere in the world, the web and email on the go and as much music as you can stream—but first you must sacrifice a bit of privacy. Your location, preferences and habits will be transmitted to some faceless corporation to be parsed for insights and sold on to advertisers keen to sell you shampoo or car insurance.

Some companies profit from tools that allow people to be snooped on without their consent. NSO Group, an Israeli firm, is probably the best known. It sells Pegasus, a piece of spyware that allows the program's operators—typically spies and secret police—to see everything a mobile phone's owner does. By reading messages directly off the phone's screen, it can bypass the encryption built into apps such as WhatsApp or Signal. Pegasus can even surreptitiously activate a phone's camera and microphone, uploading whatever it hears or sees to its controllers.

NSO made headlines in 2021 when Amnesty International and a group of media organisations, led by Forbidden Stories, a Paris-based non-profit venture, reported on a leaked list of 50,000 phone numbers that appeared to be possible targets selected by Pegasus's various operators around the world. NSO insists that governments purchase its tools to catch "terrorists, criminals and paedophiles". Yet the leaked list included phones belonging to activists, journalists, lawyers and politicians. Among those appearing were Emmanuel Macron, France's president; Rahul Gandhi, an opposition politician in India; Roula Khalaf, the editor of the *Financial Times*; and, according to his wife, the family of Jamal Khashoggi, a Saudi journalist murdered and dismembered by his own government in its consulate in Istanbul in 2018. (NSO has denied that Pegasus was used to target Khashoggi or his family.)

In "Pegasus" Laurent Richard and Sandrine Rigaud of Forbidden Stories tell of how they turned the leak into an exposé. The book offers a history of NSO which, like so many Israeli startups, is stuffed with geeks who honed their skills in the army. It explains the technical basics and Pegasus's growing sophistication. Early versions of the malware relied on users clicking on links in text messages, a hit-and miss strategy; subsequent versions were able to infect phones without any user interaction.

But the book is more a journalistic

INVESTIGATE
PEGASUS
SNOOPGATE
Indian Youth Congress

NSO, under fire

memoir than a technical analysis of Pegasus, or a profile of its creators. The authors describe a mix of excitement and paranoia after obtaining the list. They draw attention to a growing trend in journalism: leaks so enormous that several outlets have to work together to check and make sense of them. The story is told mostly through pen portraits of those affected by the spying that Pegasus enabled, including Azeri and Moroccan journalists with a penchant for reporting on official misdeeds, to the displeasure of their autocratic rulers.

The book is not perfect. The character sketches can feel a bit repetitive. Sometimes the authors go too far down rabbit holes or stray into airport-thriller-style hyperbole. (At one point Pegasus is described, rather ludicrously, as being like “loose nukes, gettable for the right amount of money”.) And although it mentions several of NSO’s less well-known—and less publicity-hungry—competitors, readers may feel that more pages could have been spent outlining the size and rapid growth of the hacking-for-hire business.

NSO’s story is not over. The firm has been hit by lawsuits from WhatsApp and Apple. Hanan Elatr, Khashoggi’s widow, is reportedly planning to sue. Last year America slapped it with the same sorts of export restrictions it has applied to Huawei, cutting it off from American microchips and software. For those wanting to catch up on the drama so far—or for politicians, journalists or CEOs wondering how best to calibrate their paranoia—the book is a good place to start. ■

Life lessons

Swing and a miss

A philosopher offers four counterintuitive case studies in failure

In Praise of Failure. By Costica Bradatan.
Harvard University Press; 288 pages; $29.95 and £26.95

FAILURE CONCEALS success, or so argues Costica Bradatan, a philosopher, in this imaginative but puzzling book. Though diverting to read, it is not easy to review. Its main claim has an air of defensive paradox: if failure really is success, listing the book’s flaws may be mistaken for praise.

Failure may be “brutal and nasty and devastating”, Mr Bradatan writes, but it is also “essential to what we are as human beings”. A wry reflection on failure’s neglected appeal may be a promising idea in a market where “worshipping of success”, in the author’s words, has had a good run. Yet the literature of failure, whether comic or consoling, is long established, too. It is almost as old as writing itself.

Trouble starts early with the use of “failure” as a generic term, rather like “butter”. Organs, crops, machines, banks, students, concerts, dinner parties and scientific experiments are alike in that all can fail. Each has a standard of success that may or may not be met. That likeness, though, is minimal. Some failures are serious and some are trivial. It depends what is at stake—an unsuccessful vaccination campaign matters more than a lost football match, a failed kidney more than a flat soufflé.

As the stake here is success or failure in life, Mr Bradatan wisely approaches this topic from an oblique angle. He analyses the lives of four individuals, which he says offer “lessons in humility”. Each, he writes, involves a distinctive kind of life failure: physical, political, social or biological.

First up is Simone Weil, a radical French philosopher and social missionary. She took human suffering to be pervasive but refused to treat it as “natural” (ie, inevitable and ethically neutral). Suffering was unequally shared, she thought, and much of it due to the power of the strong to abuse the weak. In 1943 she died of malnourishment, in self-imposed poverty in England, at the age of 34.

Next is Mahatma Gandhi, the charismatic campaigner for India’s ethical revival and independence from British rule. Mr Bradatan takes issue with Gandhi’s “alarmingly imperfect behaviour” (mainly egotism and undue fixation with chastity). The author suggests he might be compared to the likes of Vladimir Lenin and Maximilien Robespierre, whose utopian dreams were realised as nightmares.

Third comes Emil Cioran, a misanthropic writer with a seductive pen and taste for pessimistic aphorisms. (“Any success, in any realm, involves an inner impoverishment.”) A Romanian fascist in the 1930s—a “folly” he later denounced—he became a recluse in Paris before a spell of acclaim in the last decades of his life.

Last is Mishima Yukio, perhaps the finest Japanese writer of the 20th century. Disgusted by the country’s pacifist constitution as well as its decadent and materialist society, in 1970 he called on troops in Tokyo to rebel. Mishima probably knew the protest would be futile. He committed *seppuku*, or ritual disembowelment, before being beheaded by an accomplice.

The schema is unconvincing, as physical and biological failure seem to be the same, and each kind of failure involves some aspect of the others. The framework offers little more than signposting. How they failed, exactly, is not clear. Weil and Cioran left their writings. Mishima achieved not only literary greatness but also the spectacular, violent death that had been his erotic obsession throughout his adult life. Gandhi liberated India.

The territory of human failure is familiar: whether life is a blessing or a curse has been disputed since ancient times. In his book “Better Never to Have Been”, David Benatar, a South African philosopher, revived an old tradition of pessimism and argued that, as life was on balance bad, it was wrong to have children. To defend a counterintuitive proposition takes logical persistence or wit—preferably both. Unfortunately “In Praise of Failure” falls short. ■

HOME ENTERTAINMENT

“O Caledonia”

One of a kind

Elspeth Barker’s only novel is a celebration of obstinate individuality

SHE LIES in a heap on the staircase of Auchnasaugh Castle, “twisted and slumped in bloody, murderous death”. Above her, a stained-glass window bears her family motto: *Moriens sed Invictus*, “dying but unconquered”.

It is an odd beginning for a novel that teaches girls how to grow up. “O Caledonia”, however, delights in defying convention. It is a brooding, scintillating coming-of-age tale, full of delicate fashionings of the macabre. It suggests that it is better to be strange than to conform. Janet, the heroine, is ungainly and unusual. All the same, her obstinate individuality is thrilling today, when teenagers’ need to fit in seems ever more acute and their foibles are constantly displayed on social media.

Elspeth Barker wrote “O Caledonia”, her only novel, in 1991. Critically lauded, it nevertheless fell out of print after 2001. In 2017 Ali Smith called it the “one of the best least-known novels of the 20th century”. In 2021, a year before Barker’s death, it was reissued by Weidenfeld & Nicholson in Britain. Last year it was released in America and Spain; more editions are coming.

The author was eccentric. She grew up in a Scottish castle before studying modern languages at Oxford—though she failed her final exam, as she slept through it. Aged 22, she fell in love with George Barker, a 50-year-old poet and father to ten children from three relationships. (They had a further five children.) She kept a pot-bellied pig called Portia in the kitchen, wrote for literary reviews and taught Latin at girls’ schools. She encouraged her charges to be maverick young ladies, not simpering little girls.

“O Caledonia” is a lyrical evocation of that sensibility. For Janet, conventional girlhood is a half-existence of dolls, ribbons and submission. If to be feminine is to be pretty and motherly, she is not only unfeminine, but half-feral. A haircut makes her look like a “menacing Hausfrau”. She reads books as though “rending the limbs of some slaughtered beast”. At a loss as to how to handle her priggish younger siblings, she nearly maims one, shoves another out of a moving car and attempts to bury a third. “A nasty rat has buried your baby,” she tells her horrified parents. “She’s gone now.”

Frequently hapless and profoundly misunderstood, Janet suffers from the careless cruelties of adolescence. Girls are cliquey and snide, boys are predatory, adults are rarely better. But Janet stays passionate and maintains a love of language. Beth is “a beautiful name, a velvet name, brownish mauve”. Poisonous hogweed is rechristened “Lord of Luna”. A darkening Scottish sky in winter “sheds an unearthly glory”. Janet perceives strange beauty in the world around her, even if she is derided for it.

Her short life is a hymn to originality. How much better, Barker implies, to be clever and odd than gormless or dull. Friends are few, yet beloved: Janet’s jackdaw, her sole mourner, searches for her “unceasingly” after her death. Refusing to adopt a lesser companion in her stead, in despair he flies into the castle walls. Dying, but unconquered. ■

Janet Malcolm’s memoir

On reflection

Still Pictures. By Janet Malcolm.
Farrar, Straus and Giroux; 176 pages; $26.
Granta; £14.99

JANET MALCOLM was a journalist who famously compared journalists to con men, “preying on people’s vanity, ignorance or loneliness…and betraying them without remorse.” She was a biographer who skewered the “voyeurism and busybodyism” of biographies. In her books and articles, mostly for the *New Yorker*, Malcolm used her pen like a knife, trimming fat and gutting pieties. She died in 2021, but her distinctive voice lives on in the syllabuses of writing classes around the world.

With “Still Pictures”, Malcolm has published a kind of posthumous memoir (though she never would have called it that). Given her critique of the biases inherent in storytelling, and her insights into the ways individuals use stories to obscure what is unknown and unknowable about the self, however could she indulge in that most warped and self-serving genre of them all?

The essays that make up this book all start with the kind of old and unremarkable personal photos that occupy dusty shoe boxes. In an afterword, Anne Malcolm reminds readers that her mother was once the *New Yorker*’s photography critic, but Malcolm’s observations are not really about the images. Rather, she uses the photos to consider the porousness of memory, the way the mind often seizes and distorts some details while misplacing others. “Most of what happens to us goes unremembered,” she writes. This makes autobiography a kind of “novelistic enterprise”.

Given Malcolm’s preoccupation with psychoanalysis, it is fitting that she spends much of the book revisiting the haze of childhood. She recounts how her Jewish family fled the Nazis in Prague in 1939 and made a home among fellow Czech émigrés in New York. Malcolm’s father worked as a doctor, changed their surname from Wiener to Winn and helped them become the kind of “ordinary middle class, middlebrow family” that subscribed to the Book-of-the-Month Club and cooked casseroles with Campbell’s cream-of-mushroom soup. (“Does anyone say ‘casserole’ anymore?”) Malcolm internalised the city’s anti-Semitism before her parents told her she was Jewish, so she “resented and hid” this detail about herself for much of her youth.

As a memoirist, Malcolm comes clean

about her gaps in memory and her lapses in judgment, and she has characteristically strong feelings about what is moral and appropriate. In writing about her father, for example, Malcolm explains that she is sticking to "lovely plotless memories" about him, as the memories with a plot are invariably those of "conflict, resentment, blame, self-justification—and it is wrong, unfair, inexcusable to publish them."

Her take on her mother is more complicated. Malcolm writes that she was "warm and loving and unselfish", roasting squab and baking profiteroles for her two daughters whenever they fell ill. But her mother could also be needy and volatile—she "allowed herself her histrionics"—with a vivacity that perhaps masked "an inner deadness of spirit". It is a compelling portrait, even if it doesn't quite cohere. As Malcom writes: "Do we ever write about our parents without perpetrating a fraud?"

Malcolm overlooks her first marriage and touches only briefly on her second. She worked at the *New Yorker* for almost 60 years, yet her account of her career is dominated by the decade she spent defending herself from accusations of libel brought by one of her subjects. She laments her initial reaction to the lawsuit, which was to say nothing in her defence "in dogged accord with the magazine's stance of unrelenting hauteur".

The book's most charming moments are when the incisive, unsparing adult can be found in the child. About a kindly Czech couple who were friends with her parents, Malcolm writes that their dullness "brought out an obnoxiousness in my sister and me for which I would blush today if I were a better person. But a child's cruelty is never completely outgrown." ■

Johnson In the beginning was the Word

Translating the Bible is a vexed task, as a new book shows

DODGY TRANSLATION is not always of great import. You may be able to work out a new gadget's instructions even if they are garbled. If the joke you have translated with your smartphone leaves your audience baffled, you risk nothing more than embarrassment.

Sacred texts are another matter. Some religions eschew translations: faithful Muslims are meant to read the Koran in Arabic. Jews similarly revere their original texts. Reading them in Hebrew (some passages are in Aramaic, a related Semitic language) is the mark of a scholar.

By contrast, the two faiths' cousin—Christianity—has a long tradition of translation. The Bible not only includes Jewish texts as the Old Testament, but also a New Testament written in Greek. Nearly every quoted word in the gospels is a translation, as Jesus and his followers spoke Aramaic. For centuries the Western church's Bible was a translation: St Jerome's Vulgate, the predominant edition until the Reformation, rendered the original Hebrew and Greek into Latin.

Translation is a vexed undertaking as it has theological consequences. In the Old Testament, Isaiah said an *almah* would give birth. Today most scholars agree that it probably just meant "young girl". The translation of Isaiah's Hebrew into pre-Christian Greek (in the Jewish text known as the Septuagint) rendered it as *parthenos*, or "virgin". For Christians, this bolsters the idea that Jesus's birth fulfilled a prophecy.

Now most people read the Bible in their own language. A new book, "The Word" by John Barton, an Anglican priest and former scholar at Oxford University, explores the complexities in converting millennia-old texts into modern English. You might think that an excellent knowledge of the source language, the subject matter and English style would be enough, but those are just bare prerequisites for a translator, and will not spare them endless hard choices. Mr Barton distinguishes between "formal" and "functional" equivalence. Should a translator try to carry across the language of the original (its form) or its purpose (function)?

Some translators have produced a text of such quality that its readers simply consider it "the Bible". Martin Luther set the standard for modern High German with his translation; every subsequent German version has been compared with his text as much as with the originals. The same goes for the King James Bible. Expressions such as "long-suffering" passed into standard English from its pages. Few readers today know that they were once strikingly earthy literal translations from Hebrew. (They were also the work of William Tyndale, on whose translation the later King James scholars drew. Tyndale had courted controversy for translating the Bible and was executed for heresy.)

Most translations aim for a text that belongs to its distant time and place yet is accessible to 21st-century readers. That demands certain decisions. There is no such single thing as "modern English": there are many styles and registers. Some translations, intended to reach young or less literate populations, err on the side of slang and read as uninspired. Even when attempting to be neutral—when telling the story of Noah's ark, for example—should the translator look to the style of a legend, a novel, an eyewitness account, a history or a news report? Each has its particular vocabulary and turns of phrase. (Mr Barton suggests that the Hebrew style of this story is best considered that of a legend.)

Then there is the question of the variety within the Bible itself. Some translators strive to create a unified style for the whole book. The word *biblia* was originally a plural, and with reason: the composition of the Old Testament spanned most of a millennium, a fact reflected in its language. The New Testament books may vary less, but vary they do. How might a translator approach the first two chapters of Luke's gospel, which are so distinct they are thought by some to belong to a different author?

Vladimir Nabokov said that every translator's job was to "reproduce with absolute exactitude" and that anything else is either "an imitation, an adaptation or a parody". Yet when it comes to the Bible, translators must consider whether they regard the text as a "sacred script" or a "sacred story", Mr Barton says. Hew to the script, and you create a difficult text that risks excluding readers from salvation. Rework the language and you risk presuming to improve on the word of God. Even staunch atheists will learn a great deal from Mr Barton about the horns of a dilemma that could belong to the devil himself.

Economic & financial indicators

Economic data

	Gross domestic product				Consumer prices			Unemployment rate		Current-account balance	Budget balance	Interest rates		Currency units	
	% change on year ago				% change on year ago			%		% of GDP, 2022†	% of GDP, 2022†	10-yr gov't bonds latest,%	change on year ago, bp	per $ Jan 18th	% change on year ago
	latest		quarter*	2022†	latest		2022†								
United States	1.9	Q3	3.2	2.1	6.5	Dec	8.0	3.5	Dec	-3.7	-5.5	3.4	150	-	
China	2.9	Q4	nil	3.1	1.8	Dec	1.9	5.5	Dec‡§	2.4	-5.6	2.7 §§	24.0	6.76	-6.1
Japan	1.5	Q3	-0.8	1.4	3.8	Nov	2.5	2.5	Nov	1.6	-6.3	nil	-8.0	128	-10.8
Britain	1.9	Q3	-1.2	4.0	10.5	Dec	7.9	3.7	Oct††	-5.9	-6.8	3.5	230	0.81	-8.6
Canada	3.9	Q3	2.9	3.4	6.3	Dec	6.7	5.0	Dec	-0.6	-2.2	2.7	83.0	1.34	-6.7
Euro area	2.3	Q3	1.3	3.1	9.2	Dec	8.4	6.5	Nov	1.3	-4.2	2.0	200	0.92	-4.3
Austria	1.7	Q3	0.9‡	4.9	10.2	Dec	8.6	5.6	Nov	-0.5	-3.6	2.6	233	0.92	-4.3
Belgium	1.9	Q3	0.8	2.7	10.4	Dec	10.2	5.5	Nov	-2.4	-4.8	2.6	230	0.92	-4.3
France	1.0	Q3	0.7	2.5	5.9	Dec	6.0	7.0	Nov	-1.9	-5.3	2.6	231	0.92	-4.3
Germany	1.3	Q3	1.6	1.7	8.6	Dec	8.7	3.0	Nov	4.2	-3.5	2.0	200	0.92	-4.3
Greece	2.1	Q3	-2.1	5.0	7.2	Dec	9.6	11.4	Nov	-5.9	-4.5	4.0	234	0.92	-4.3
Italy	2.6	Q3	1.9	3.7	11.6	Dec	8.6	7.8	Nov	-0.8	-5.7	3.7	234	0.92	-4.3
Netherlands	3.1	Q3	-0.9	4.3	9.6	Dec	11.6	3.5	Dec	6.4	-1.4	2.3	220	0.92	-4.3
Spain	4.4	Q3	0.2	4.5	5.7	Dec	8.5	12.4	Nov	0.2	-4.7	3.1	245	0.92	-4.3
Czech Republic	1.6	Q3	-1.0	2.5	15.8	Dec	15.1	2.7	Nov‡	-2.4	-5.1	4.2	103	22.1	-2.6
Denmark	3.2	Q3	1.1	2.8	8.7	Dec	7.9	2.6	Nov	9.0	0.9	2.2	206	6.87	-4.5
Norway	2.5	Q3	6.3	3.5	5.9	Dec	6.4	3.2	Oct‡‡	18.8	12.2	1.4	76.0	9.84	-10.6
Poland	4.5	Q3	4.1	4.5	16.6	Dec	14.4	5.2	Dec§	-3.7	-3.7	5.8	169	4.35	-8.1
Russia	-3.7	Q3	na	-2.3	11.9	Dec	13.2	3.7	Nov§	12.3	-1.1	10.4	100	68.9	11.5
Sweden	2.6	Q3	2.4	3.0	12.3	Dec	7.9	6.4	Nov§	3.7	-0.5	1.9	153	10.2	-11.1
Switzerland	0.5	Q3	1.0	2.0	2.8	Dec	3.0	1.9	Dec	5.2	-1.0	1.1	102	0.91	1.1
Turkey	3.9	Q3	-0.5	5.1	64.3	Dec	73.5	9.9	Nov§	-8.1	-3.4	9.8	-1202	18.8	-27.4
Australia	5.9	Q3	2.6	3.7	7.3	Q3	6.4	3.5	Dec	2.0	-1.9	3.5	162	1.43	-2.8
Hong Kong	-4.5	Q3	-10.0	-2.7	1.8	Nov	1.9	3.7	Nov‡‡	4.2	-3.4	3.1	145	7.82	-0.4
India	6.3	Q3	19.3	6.9	5.7	Dec	6.5	8.3	Dec	-2.7	-6.4	7.3	70.0	81.3	-8.2
Indonesia	5.7	Q3	na	5.1	5.5	Dec	4.2	5.9	Q3§	1.1	-3.8	6.7	28.0	15,088	-5.0
Malaysia	14.2	Q3	na	7.3	4.0	Nov	3.4	3.6	Nov§	2.4	-5.3	3.9	26.0	4.31	-3.0
Pakistan	6.2	2022**	na	6.2	24.5	Dec	19.9	6.3	2021	-3.9	-7.8	14.1 †††	255	229	-23.1
Philippines	7.6	Q3	12.1	7.7	8.1	Dec	5.6	4.5	Q4§	-4.0	-7.7	6.3	150	54.6	-5.7
Singapore	2.2	Q4	0.8	3.5	6.7	Nov	6.1	2.1	Q3	18.7	-1.0	2.9	105	1.32	2.3
South Korea	3.1	Q3	1.3	2.6	5.0	Dec	5.1	3.0	Dec§	1.2	-3.1	3.3	79.0	1,238	-3.8
Taiwan	-0.9	Q4	-4.3	3.0	2.7	Dec	2.9	3.6	Dec	13.0	-0.3	1.2	49.0	30.3	-9.0
Thailand	4.5	Q3	5.0	3.2	5.9	Dec	6.1	1.4	Oct§	-1.8	-5.0	2.5	44.0	32.8	0.9
Argentina	5.9	Q3	7.0	5.7	94.8	Dec	72.5	7.1	Q3§	-1.0	-4.2	na	na	183	-43.0
Brazil	3.6	Q3	1.6	2.8	5.8	Dec	9.3	8.3	Oct§‡‡	-3.0	-4.7	12.7	107	5.10	8.2
Chile	0.3	Q3	-4.6	2.3	12.8	Dec	11.6	7.9	Nov§‡‡	-8.1	-0.3	5.3	-78.0	818	0.1
Colombia	7.1	Q3	6.4	6.2	13.1	Dec	10.1	9.5	Nov§	-8.0	-4.7	12.4	331	4,688	-14.0
Mexico	4.3	Q3	3.6	2.8	7.8	Dec	7.9	3.0	Nov	-1.0	-2.5	8.6	81.0	18.7	9.0
Peru	1.7	Q3	1.8	2.6	8.5	Dec	7.8	6.2	Dec§	-3.4	-1.5	7.9	187	3.83	0.5
Egypt	4.4	Q3	na	6.6	21.3	Dec	13.6	7.4	Q3§	-4.6	-7.4	na	na	29.6	-46.9
Israel	7.5	Q3	1.9	6.1	5.3	Dec	4.5	3.9	Nov	3.4	0.2	3.1	184	3.38	-7.4
Saudi Arabia	3.9	2021	na	8.9	3.3	Dec	2.5	5.8	Q3	13.1	3.4	na	na	3.76	-0.3
South Africa	4.1	Q3	6.6	1.9	7.5	Dec	6.9	32.9	Q3§	-1.3	-5.5	9.7	20.0	17.0	-8.7

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. †††Dollar-denominated bonds.

Markets

In local currency	Index Jan 18th	% change on: one week	% change on: Dec 31st 2021
United States S&P 500	3,928.9	-1.0	-17.6
United States NAScomp	10,957.0	0.2	-30.0
China Shanghai Comp	3,224.4	2.0	-11.4
China Shenzhen Comp	2,098.0	2.5	-17.1
Japan Nikkei 225	26,791.1	1.3	-6.9
Japan Topix	1,934.9	1.8	-2.9
Britain FTSE 100	7,830.7	1.4	6.0
Canada S&P TSX	20,376.2	1.8	-4.0
Euro area EURO STOXX 50	4,174.3	1.8	-2.9
France CAC 40	7,083.4	2.3	-1.0
Germany DAX*	15,181.8	1.6	-4.4
Italy FTSE/MIB	26,052.4	2.0	-4.7
Netherlands AEX	749.1	1.4	-6.1
Spain IBEX 35	8,933.3	2.4	2.5
Poland WIG	61,177.0	-0.2	-11.7
Russia RTS, $ terms	1,006.4	0.4	-36.9
Switzerland SMI	11,366.6	1.1	-11.7
Turkey BIST	5,384.2	13.9	189.8
Australia All Ord.	7,609.5	2.7	-2.2
Hong Kong Hang Seng	21,678.0	1.1	-7.3
India BSE	61,045.7	1.6	4.8
Indonesia IDX	6,765.8	2.8	2.8
Malaysia KLSE	1,495.5	0.5	-4.6

	index Jan 18th	% change on: one week	% change on: Dec 31st 2021
Pakistan KSE	38,791.1	-4.8	-13.0
Singapore STI	3,289.6	0.6	5.3
South Korea KOSPI	2,368.3	0.4	-20.5
Taiwan TWI	14,932.9	1.2	-18.0
Thailand SET	1,685.4	nil	1.7
Argentina MERV	235,372.4	4.8	181.9
Brazil BVSP	112,228.4	-0.3	7.1
Mexico IPC	53,218.8	nil	-0.1
Egypt EGX 30	15,987.2	3.0	34.2
Israel TA-125	1,889.1	2.3	-8.9
Saudi Arabia Tadawul	10,664.0	0.4	-5.9
South Africa JSE AS	79,865.5	1.7	8.4
World, dev'd MSCI	2,713.5	0.5	-16.0
Emerging markets MSCI	1,030.1	1.3	-16.4

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 31st 2021
Investment grade	145	120
High-yield	465	332

Sources: Refinitiv Datastream; Standard & Poor's Global Fixed Income Research. *Total return index.

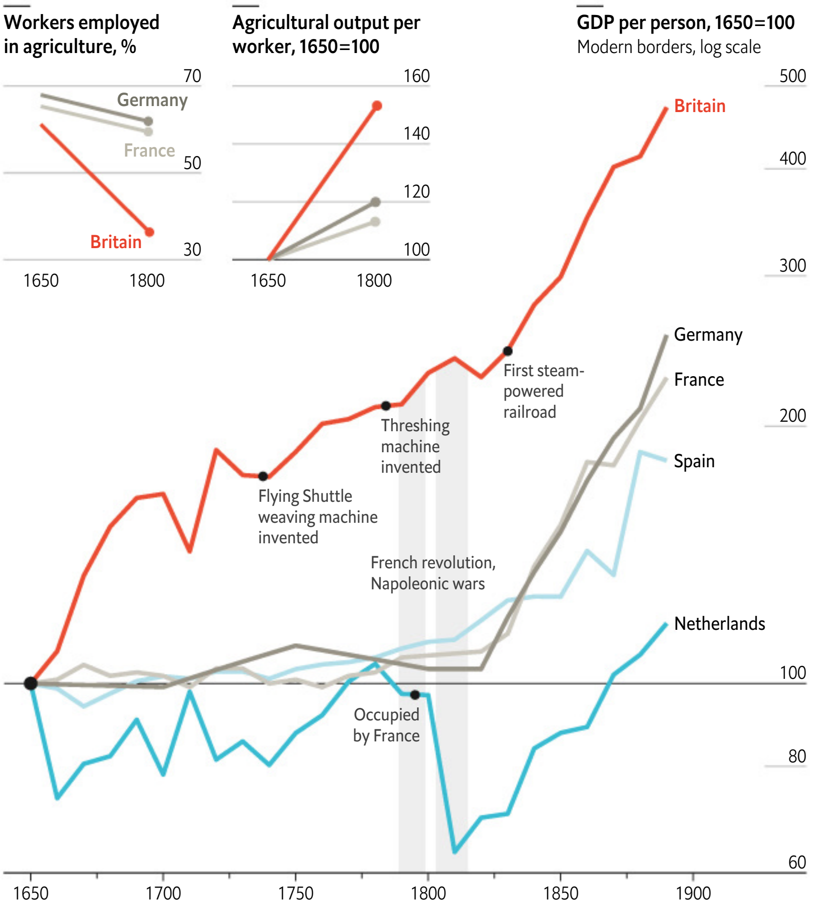
Commodities

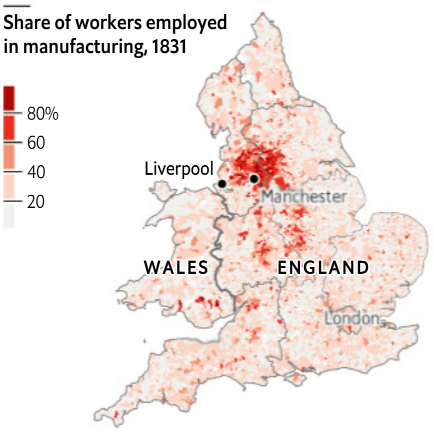
The Economist commodity-price index 2015=100	Jan 10th	Jan 17th*	% change on month	% change on year
Dollar Index				
All Items	155.4	157.7	4.6	-5.4
Food	139.8	139.5	1.7	0.3
Industrials				
All	170.0	174.7	6.9	-9.3
Non-food agriculturals	127.8	130.9	-0.4	-24.0
Metals	182.6	187.7	8.5	-5.5
Sterling Index				
All items	195.3	196.0	3.4	4.6
Euro Index				
All items	160.7	161.9	3.1	-0.7
Gold				
$ per oz	1,875.3	1,910.6	5.1	5.2
Brent				
$ per barrel	80.2	86.1	7.4	-1.7

Sources: Bloomberg; CME Group; Cotlook; Refinitiv Datastream; Fastmarkets; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Urner Barry; WSJ. *Provisional.

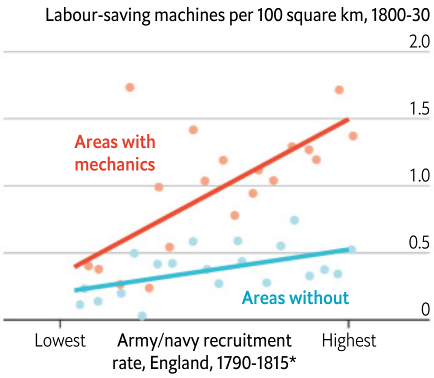
For more countries and additional data, visit **economist.com/economic-and-financial-indicators**

→ **Britain began industrialisation long before other European countries did**





Shortages of workers in wartime spurred the adoption of labour-saving machines



*Areas ranked in 20 equal-sized groups Sources: Maddison Project; "Agricultural productivity in Europe, 1300-1800", by R.C. Allen, 2000; "Slavery and the Industrial Revolution", by S. Heblich, S.J. Redding and H. Voth, 2022; "Fighting for Growth", by H. Voth, B. Caprettini and A. Trew, 2022

Mother of invention

A flurry of new studies identifies causes of the Industrial Revolution

THE INDUSTRIAL REVOLUTION was the biggest transformation in economic history. For centuries scholars have sought to understand why this process occurred in Britain around 1750. But without the ability to run counter-factual experiments, it is hard to prove any single explanation.

Researchers are now testing theories by studying why similar parts of Britain industrialised at different rates. New papers have yielded evidence for a few key factors: slave-owners' capital, entrepreneurs who stood to benefit from investing, and shortages of lower-skilled workers.

Industrialisation requires investment, which requires capital. To measure the impact of available wealth, Stephan Heblich, Stephen Redding and Hans-Joachim Voth analysed geographic variation in ownership of plantations. The riches Britons extracted from slaves in the Americas flowed mainly to a few cities, such as Liverpool. By the 1830s these regions had large numbers of cotton mills and shares of workers employed in manufacturing.

Other factors could have made these areas both amass wealth from slavery and industrialise quickly. But the paper tries to isolate slavery's impact using slave ships' voyages. Long journeys, caused mainly by bad weather, reduced the share of captives who survived and thus traders' profits. And among similar areas, those where the trips of the slave-trading ancestors of residents in the 1830s were unusually short industrialised faster than did those where residents' ancestors' trips were atypically long.

Investors still needed financial incentives to buy machines. In early modern Britain, most tenant farmers paid fixed rents, stopping both workers who moved elsewhere and landlords from profiting from investment. An exception was monasteries' land, where such contracts were rarer. In 1536-40 Henry VIII dissolved these monasteries and sold their land. The buyers could farm or rent it on market terms.

A study by Leander Heldring, James Robinson and Sebastian Vollmer shows that areas once held by monasteries were at the vanguard of industrialisation. By the 1830s they had unusually large numbers of workers in trades and crafts, agricultural-machine patents, textile mills and grain separators. The authors say that market-based farms, common on ex-monastic land, created an entrepreneurial class and incentives for technological advances.

Another factor that has gained support is labour shortages. Mr Voth, Bruno Caprettini and Alex Trew studied Britain's wars with France in 1793-1815, when conscription shrank the workforce abruptly. They found that adoption of devices replacing manual labour was greatest in areas that provided the most servicemen—so long as those regions also had mechanics. The effect was weaker without such skilled workers, and on non-labour-saving machines.

The strength of evidence for each of these causes implies that industrialisation probably required a complex mix of conditions. Many important variables are hard to test statistically. But measuring even a few is a promising advance. ■

The good forger

Adolfo Kaminsky, forger and photographer, died on January 9th, aged 97

The policeman was getting closer. As he shoved through the car in the Paris Metro he was shouting: "Identity check! General search!" The slight, bespectacled teenager shrank back in his seat and clasped his satchel tighter. Let me not give myself away, Adolfo Kaminsky was thinking. Not now, not today.

Word had got round that police were looking for a forger. An expert one, who in Vichy France in 1944 was creating identity papers that looked impeccable. They would never suspect him. He was merely a child. When the officer asked what he had in his satchel he said "Sandwiches!" and offered to show him. The man waved him aside and moved on.

But Adolfo was the forger. In the satchel was his whole treasure: 50 blank identity cards, rubber stamps, his dip pen and a stapler. With these tools and a few more he could reproduce perfectly any official document you wanted. He could replicate names and addresses in the authentic loopy script of a municipal clerk; he could press paper in layers, engrave it and watermark it, until the page was perfect. To reproduce official perforations in passports, he used a sewing machine. At the end, to give an impression of long use and wear in a pocket, he aged his masterpieces with fretting from the base of a tobacco pipe and his own special dust, spinning them in a centrifuge made from a bicycle wheel.

Then, with these documents, he saved lives. Each one replaced a Jewish name with a Gentile one, and a far-off birthplace with somewhere close. His own false ID card (not made by him) gave his name as Julien Adolphe Keller and his birthplace not as Buenos Aires, as was the case, but Alsace. With such cards, backed up by forged passports, baptism certificates and birth certificates, around 10,000 Jews were able to escape arrest, which would have meant death in the camps, and find safety. Most were children, many from institutions. As soon as a German round-up was announced, he and others from his group would visit those on the list and offer to make them new documents on the spot. Hence his presence, carrying the tools of his trade, on the Metro that day.

Sheer chance had pushed him into forgery. He had been bewitched by colours, and the chemicals that made them, when he went to work for a dyer after dropping out of school. He taught himself the science and did experiments on the stove at home, one of which turned the washing-up every colour of the rainbow. Ink-bleaching became a passion, and a part-time job at a dairy revealed that the secret was lactic acid. This could dissolve even Waterman's blue "indelible" ink, the sort used on ID cards. His skill at erasing got him, at 17, into a resistance group called "La Sixième", which specialised in removing and replacing personal details on papers. It was extremely hard, though, to remove the huge red "Jew" stamped diagonally across them. He gradually persuaded his comrades that it was easier not to tamper, but to start from scratch. Admiringly, they called him "the Technician".

Yet he was not a natural forger. He obeyed the law absolutely. Before the Metro incident, his tensest moment had been when La Sixième, as an initiation, made him create a new ID card for himself. This illegal act so disturbed him that he never forgot the smell of the wooden table where he sat, or the gape of the inkwell. When the law itself was inhuman, however, it had to be fought.

Faith did not motivate him, for he was a non-believer. Nor did money, though he was usually broke; he never charged for his services either during the war, or in the decades afterwards when he continued his work elsewhere. In 1962 in Algeria, where he was helping the FLN against their French colonial rulers, he forged a cubic metre of 100-franc notes in the hope of destabilising the French economy. When a peace accord intervened he burned them, every one, in a great "fire of joy".

His motivation was simply this: to avoid deaths and save lives. Nothing else. There had been too many corpses. He had been traumatised by the death of his mother, pushed off a train when he was 15, and by a spell in 1943 in Drancy, the holding camp for Auschwitz, where the outcome for most was death but he, with his real Argentine passport, had escaped. Papers could release human beings or doom them; tie them to an identity, or set them free. That responsibility was now his. The hardest job his group was given was to produce 900 documents, for 300 children, in three days. For two of those, he forced himself to stay awake. In one hour, he knew, he could produce 30 forged papers; if he slept for an hour, therefore, 30 people would die. He could not bear that burden. He worked until he passed out, then woke and worked again.

In wartime France the moral case for forgery was clear. It became less so after the war, where he helped violent groups such as the FLN, and Irgun in British-run Palestine, as well as those who resisted right-wing regimes in Spain, Chile, Nicaragua and South Africa. He also provided false papers for young Americans hoping to avoid the Vietnam draft. Wherever he was offended by the actions of rulers against ruled (all humans being equal), he stepped in with his pens and his rubber stamps. The work so consumed him that his family in those decades rarely saw him and had no idea, until he was almost 80, what he had been doing.

While he did his forging his cover was never blown. To outside appearances, and to earn at least some money, he worked as a commercial photographer. He was free then to seek out humanity and beauty in a world filled with their opposites. At night he would climb out on rooftops to photograph Paris asleep. By day he prowled the streets of Pigalle, the flea markets and second-hand shops, looking for subjects. He snapped an old shopkeeper with his cats and books, a busker in the park, a tramp knitting, a woman waiting by a wall. These lives, too, he rescued from oblivion.

One of the strangest photographs he took was of himself in a forest in 1948. He was sitting on a railway track, his gaze steady through his spectacles and the wind lifting his hair. He sat there as if he was the sole obstruction to the relentless train of fate. Toiling with his lactic acid and his dip pen, he had felt just the same. ■

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